The College Park Enhancement Plan

The University of Maryland at College Park

October, 1988

DRAFT 1.1

The College Park Enhancement Plan

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Chapter 1: Enhancing the College Park Campus

The University of Maryland System shall:

(1) maintain and enhance the College Park Campus as the State's flagship campus with programs and faculty nationally and internationally recognized for excellence in research and the advancement of knowledge.

(3) provide the College Park Campus with the level of operating funding and facilities necessary to place it among the upper echelon of its peer institutions.

Chapter 246 of the Laws of Maryland 1988, § 10-209

1.1 Introduction

College Park, the flagship campus of the University of Maryland System, a member of the prestigious American Association of Universities, is the State of Maryland's comprehensive land-grant university, and its principal center of graduate studies and research.

This chapter is the first section of the College Park Enhancement Plan, a Plan designed to transform College Park from what is a very good institution, to a truly great institution, a campus the equal of the best public universities in America. The chapter defines College Park's enhancement strategy, its methods of developing the plan, its philosophy, and its challenges and opportunities.

At a time when other public universities are struggling with resource reductions, the 1988/89 academic year offers College Park a rare opportunity to marshall its resources and energies to capitalize on statewide reorganization, the official recognition by the State of our special, flagship status, our increased autonomy, and our new campus administration. Few opportunities exist in the life of an institution to set a long-term agenda. Thanks to the State of Maryland's unprecedented support last year, we now enjoy such an opportunity, an opportunity to become one of the best public universities in the country and a repository of skills, talent and service for the citizens of Maryland.

1.2 Recent Achievements

In building our future as a premier public university, the campus is building upon a base of solid achievement. During the past two decades, College Park has grown from an institution recognized largely for athletic achievement to an institution that by the 1980's had become nationally recognized for academic excellence:

- College Park's research accomplishments are numerous. Among the most recent: three College Park physicists received a Washington Academy of Sciences award for developing the first stable superconducting material above -27°; in collaboration with Berkeley and Illinois, College Park is developing the world's largest millimeter array telescope; The Gannet Center *Journal* ranked the College of Journalism as one of the exemplary schools in the

country; and the colleges of Behavioral and Social Sciences and Public Affairs received one of only five Pew Foundation grants to study relationship between economics and national security.

- College Park now ranks third in competitive federal research funds awarded to public institutions without medical schools;

- College Park's Arts and Humanities faculty has developed strong cooperative programs and close relations with the leading cultural resources of the nation's capitol, including the National Gallery of Art, the Folger Shakespeare Library, the Library of Congress, the Smithsonian Institution, and the Kennedy Center. Indicative of campus strengths in the Humanities, the National Archives and Records Administration has selected the College Park campus to be the site of Archives II, the world's most modern and advanced research archive, housing the largest collection of materials about America's history, politics and culture, a resource valued in billions of dollars;

- Among the prestigious awards won by the campus during the past several years are two Pulitzer prizes, fourteen National Science Foundation Presidential Young Investigator Awards, and numerous Sloan and Guggenheim fellowships. Overall, College Park ranks ninth among public universities in the number of distinguished faculty awards;

- College Park's Systems Research Center is one of four centers of Engineering excellence sponsored by NSF; 150 institutions competed for these four NSF awards; and

- NSF chose College Park to pioneer the engineering and implementation of the first and largest interstate research computing network.

College Park's educational accomplishments are equally noteworthy:

Quality

- Five years ago, the National Academic of Science placed seven of College Park's programs among the top ten of public research universities; six more were ranked among the top twenty;

- Average freshman SAT scores have risen dramatically over the past decade, by approximately 100 points;

- In recognition of its competitive admissions, College Park now receives five applications for every place in the freshman class;

Diversity

- College Park's emphasis on quality encompasses an emphasis on diversity. Known for a history of segregation during the first half of this century, the campus now enrolls the highest proportion of black undergraduates of any American Association of Universities institution; indeed, black enrollments have nearly doubled during the past decade. Paralleling its emphasis on ethnic diversity, the campus has made a commitment to increasing opportunities for women faculty and students, and for integrating the perspectives of women and minorities throughout the curriculum;

Innovation

- College Park is now embarking upon an ambitious plan to reform undergraduate education and to enhance the support services and structures which deepen and broaden the undergraduate experience. Among these initiatives: College Park is in the first year of a five–year State-sponsored plan to re-

duce undergraduate enrollment by 20%; the campus will implement broad revisions to the undergraduate curriculum this year, including reducing class sizes, emphasizing seminars, and integrating the major into a broader educational experience; finally, College Park will restructure its admissions procedures, broaden the range of academic advising services, and will enrich its honors program.

As the campus has developed into a strong center of education and research, so, too, has it increased the kinds of services offered to the citizens of Maryland.

Economic Development

- College Park is a leading contributor to the economic development of Maryland. Its Engineering Research Center currently supports more than fifty small high-technology businesses throughout the state.
- A College Park manufacturing initiative promises to make Maryland a model state for developing advanced manufacturing and quality control capabilities.

Cultural Life

- The campus has become a major cultural resource for the mid-Atlantic region. It is the site of the internationally famous Maryland Piano Festival; its Chorus travels internationally; the University Art Gallery presents outstanding exhibitions; outreach programs such as the Maryland Dance Theatre, Improvisations Unlimited, the UM Chorus, and Physics is Phun bring intellectual enrichment to citizens of the State.
- To promote cultural outreach, the campus transformed one of its key Humanities research efforts, its archaeology dig at Caesaraea, into a joint University of Maryland and Smithsonian Institution exhibition now travelling to major museums throughout the U.S;

Educational Outreach

- College Park's educational mission is state-wide, and is not limited to undergraduate and graduate studies. A grant from the National Endowment for the Humanities will enable College Park faculty to work directly with high school English teachers from across the state to enrich their understanding of Shakespeare and other major literary figures and works.
- Indeed, many of the primary and secondary school teachers in the State of Maryland were trained at College Park and continue to receive support via the College of Education's in-service teacher education programs.

Service

- The Maryland Fire and Rescue Institute trains over 10,000 volunteers and professionals to protect and promote fire safety for citizens of the State.
- The Bureau of Labor Relations help counties and corporations, labor and management in a variety of tasks.
- An array of agricultural outreach services, such as a computer information service for farmers, agricultural exhibits at malls and county fairs, 4-H clubs, lectures and advice from extension agents, serve agricultural interests in the state.
- Upward Bound programs, speech and hearing clinics, summer camps and programs for the gifted or elderly, and family mediation services all perform valuable service functions to various segments of the State's population.

College Park has become an institution nationally and internationally recognized for teaching and research, and a recognized partner in the cultural and economic development of the State of Maryland. Where resources have been available, College Park's programs have excelled. Often lacking State resources, the campus has had to work hard to attract external partnerships and funding for its programs. When these have been available, the campus has leveraged them successfully to promote academic quality and to develop centers of recognized excellence. If one remembers that in terms of per-student state funding for higher education (Table 1.1), Maryland ranks 45th out of 50 states, that College Park has been able to accomplish so much with a relatively modest level of state support is all the more remarkable.

The College Park community is very fortunate that the State of Maryland is beginning to recognize the level of excellence

Table 1.1

State Appropriations per Student FTE, 1986-7

State	*Appropriation per FTE*	*Rank*	*State*	*Appropriation per FTE*	*Rank*
Wyoming	$7,876	1	West Virginia	$3,733	26
Alaska	$6,358	2	Virginia	$3,730	27
South Carolina	$6,043	3	Alabama	$3,726	28
Tennessee	$5,908	4	Connecticut	$3,723	29
Hawaii	$5,853	5	Wisconsin	$3,675	30
Maine	$5,560	6	Delaware	$3,672	31
Georgia	$5,285	7	Iowa	$3,664	32
North Carolina	$5,172	8	Minnesota	$3,606	33
New York	$4,956	9	Pennsylvania	$3,570	34
Idaho	$4,906	10	Florida	$3,509	35
Arkansas	$4,750	11	Massachusetts	$3,506	36
Mississippi	$4,739	12	Texas	$3,490	37
New Mexico	$4,723	13	Washington	$3,472	38
Utah	$4,611	14	Rhode Island	$3,450	39
Kentucky	$4,581	15	Illinois	$3,408	40
Nevada	$4,249	16	Michigan	$3,371	41
California	$4,241	17	Oklahoma	$3,308	42
Montana	$4,149	18	Ohio	$3,299	43
New Jersey	$3,948	19	Kansas	$3,279	44
Louisiana	$3,905	20	South Dakota	$3,270	45
North Dakota	$3,892	21	**Maryland**	**$3,137**	**46**
Oregon	$3,850	22	Nebraska	$2,752	47
Indiana	$3,821	23	Colorado	$2,524	48
Arizona	$3,802	24	New Hampshire	$2,457	49
Missouri	$3,790	25	Vermont	$1,975	50

Source: *A Study of the Support for Public Higher Education in South Dakota: A Comparative and Historical Analysis*, South Dakota Board of Regents, 1988.

which the campus has worked so hard to achieve in recent years. The flagship status awarded College Park is one important sign of that recognition; the State's promise to enhance the campus is another important recognition of what College Park has accomplished, and a sign of a shared commitment to help College Park become one of the nation's leading public universities, having "programs and faculty nationally and internationally recognized for excellence in research and the advancement of knowledge." (Senate Bill 459).

1.3 Enhancing the Campus

Despite the strengths of College Park's accomplishments, our goal of becoming one of the nation's premier public universities may not be realized for some time. Campus reputations are built in decades, not semesters. The states with which we compete for students, faculty and resources have provided their flagship institution with operating and capital funds far beyond those available to College Park (Table 1.1, Figure 1.2). It will take years of quality funding by the State and focused resource allocation by the campus to achieve preeminent national rank and status.

To allocate resources today, it is important to recognize that achieving our goal will take years of continuing action. Our funding dialogue with the University of Maryland System Administration and the State has historically had a year-to-year focus. To build excellence, we must dedicate ourselves to a set of common goals and tasks having a long term horizon. Both our internal campus discussions and our external dialogues with the State must reflect this consistent, longer term perspective.

We have to make difficult choices and must enhance selectively. Given our enhanced status, and our external and internal reorganizations it is imperative to ask, "what kind of campus do we want to have in ten years?"

What is our vision of the future of College Park? a model of academic excellence, that is, a center of culture and intellectual activity and a repository of talent in service to the citizens of Maryland. With the appropriate programs and support, what could College Park become?

Situated in the center of a flourishing southeastern United States, College Park should enjoy the reality and reputation of being one of the most attractive and successful public research universities in the country. By capitalizing on its proximity to Baltimore, Annapolis and Washington, its key role in a burgeoning scientific and technologically sophisticated community, its premier faculty, its ambience, its intense and transforming undergraduate experience, its reputation for recruiting and retaining leading scientists and scholars, with the appropriate support, College Park could become the envy of Illinois and Wisconsin, set standards that peer institutions would seek to achieve, and become the leading public institution in the southeastern United States, and frequently the choice of faculty and students across the country and across the world.

What are the essential elements characterizing such an institution?

- a nationally recognized faculty, secure in its belief in the institution's commitment to academic values, quality research, innovative teaching, and service;
- nationally ranked colleges, successful both in providing a quality environment for faculty, staff, and students, and in developing innovative, diverse and enriching educational programs;
- a selective, high-ranked, and socially and ethnically diverse student body reflecting the natural heterogeneity of

Maryland;

- a community of faculty and student scholars working collaboratively;
- a nurturing environment for students, faculty and staff;
- a great library;
- leading–edge research and teaching tools and technologies; and
- a sense of mission and purpose pervading the institution, clearly informing its programs and shaping its priorities.

What are we to do to attain excellence in these areas? As stated repeatedly in campus planning documents, and in the deliberations of such groups as the Academic Programs Advisory Committee (APAC), key campus priorities include:

- Improving undergraduate instruction, including the addition of new faculty and staff lines;
- Enhancing undergraduate support services;
- Enhancing the Libraries;
- Improving the capacity of and access to academic and administrative computing facilities and services;
- Improving institutional support in such areas as equipment, departmental and collegiate operating budgets, and departmental and collegiate administrative support staff;
- Improving campus desegregation and minority student and faculty recruitment and retention programs;
- Increasing undergraduate scholarship and graduate fellowship opportunities;
- Support for research and service; and
- Support for exemplary programs and initiatives sponsored by individual colleges and departments.

Within these general programmatic goals and initiatives, there are many kinds of enhancements which the campus could, conceivably undertake:

- enhance the character of the campus as the State's premier institution for undergraduate teaching, research and graduate instruction. Tangible actions could include:

  Improving undergraduate teaching and advising, and reducing student: faculty ratios;

  Raising admissions standards;

  Reducing undergraduate enrollment without losing tuition revenues;

  Selectively enhancing key graduate-level teaching programs;

  Creating new and expanding existing exemplary research centers;

  Improving fellowship opportunities for graduate students and scholarships for undergraduates; and

  Expanding efforts to recruit and retain the State's leading undergraduates.

- provide a campus infrastructure capable of achieving excellence and fulfilling the research, teaching, and service missions of College Park. Tangible actions could include:

  Providing a quality support environment (support staff, facilities and equipment) throughout our colleges and departments;

  Addressing historical funding

deficiencies in areas of facilities maintenance and institutional support;

Constructing attractive and well-designed buildings, built to accomodate the programmatic requirements of the campus and reallocating and renovating existing space, including the creation of lounges and office space adequate to support on-campus research, collegiality and community;;

Expanding library holdings and staff needed to select, acquire and maintain holdings; expanding library facilities to make the Library a major focus of faculty research, teaching and collegiality;

Increasing faculty, student, and staff access to workstations for academic work of all kinds;

Expanding the campus data network into all buildings and offices, and key classrooms, conference rooms and seminar rooms;

Increasing supercomputer access and developing campus supercomputing resources;

Completing administrative computing modernization efforts;

Increasing staff:faculty ratios to improve the teaching and research services provided to faculty;

Increasing departmental and collegiate operating budgets to permit enhanced research leave and research support and greater faculty travel and recognition nationally;

Reducing faculty teaching loads commensurate with the responsibilities of a great graduate research university; and

Increasing support provided to staff, including improved compensation, benefits and work environments.

- improve campus academic community and expand campus ties to other Maryland and capital-area research, cultural, and scientific organizations and communities. Tangible actions could include:

  Creating interdisciplinary programs on campus designed to foster institutional commitment on the part of faculty and staff;

  Ensuring that the campus is provided with safe and well-equipped recreational and athletic facilities;

  Increasing development and public relations activities to market the excellence already achieved by the campus;

  Expanding financial aid to support desegregation efforts;

  Expanding the rangeof housing alternatives for undergraduates, graduate students, and faculty in what is one of the most expensive housing markets in the nation;

  Improving the reward structure for faculty and staff service to the University, State, and nation, and expanding existing campus outreach, technology transfer, and economic development organizations;

  Creating a well–endowed faculty/ club; and

  Furthering external community building efforts, particularly to expand partnerships with federal, State, and private sector organizations.

1.4 Potential Enhancement Resources

Senate Bill 459 mandates that College Park be funded at a level comparable to the upper echelon of peer institutions. As a basis for providing an order of magnitude estimate of the potential enhancement resources available to the campus, Figure 1.1 compares College Park's total income (using the most recently available data) to that of its peer institutions. Of eleven institutions, College Park ranks tenth, and obtains less funding than its peers in almost every funding category.

With the exception of the University of Texas, which has suffered due to the collapse of that state's petroleum-based economy, College Park ranks at the bottom of its peers in terms of state appropriations per full-time equivalent (FTE) student (Figure 1.2). Moreover, Texas, in the early 1980's, generously funded its colleges and universities, recruiting some of the best faculty then available.

Given existing funding disparities between College Park and peer institutions, what level of resource enhancement might College Park receive? Figure 1.3 describes the addition to the base budget that College Park would receive were the campus" funded at the appropriation per FTE student level of peer institutions (using 1987-8 budgets, but using College Park's 1986-7 enrollment, so as to 'hold harmless' the campus from the effects of enrollment reduction). As the graph illustrates, should College Park be funded in accordance with Senate Bill 459's guidelines, at "the upper echelon of peer institutions," the campus would need to add as much as $150 - $200 million to its base support budget. In view of State budget and income projections, such a level of enhancement is unlikely. Far more likely, however, is a level of enhancement approaching $70 to $100 mil-

Figure 1.1

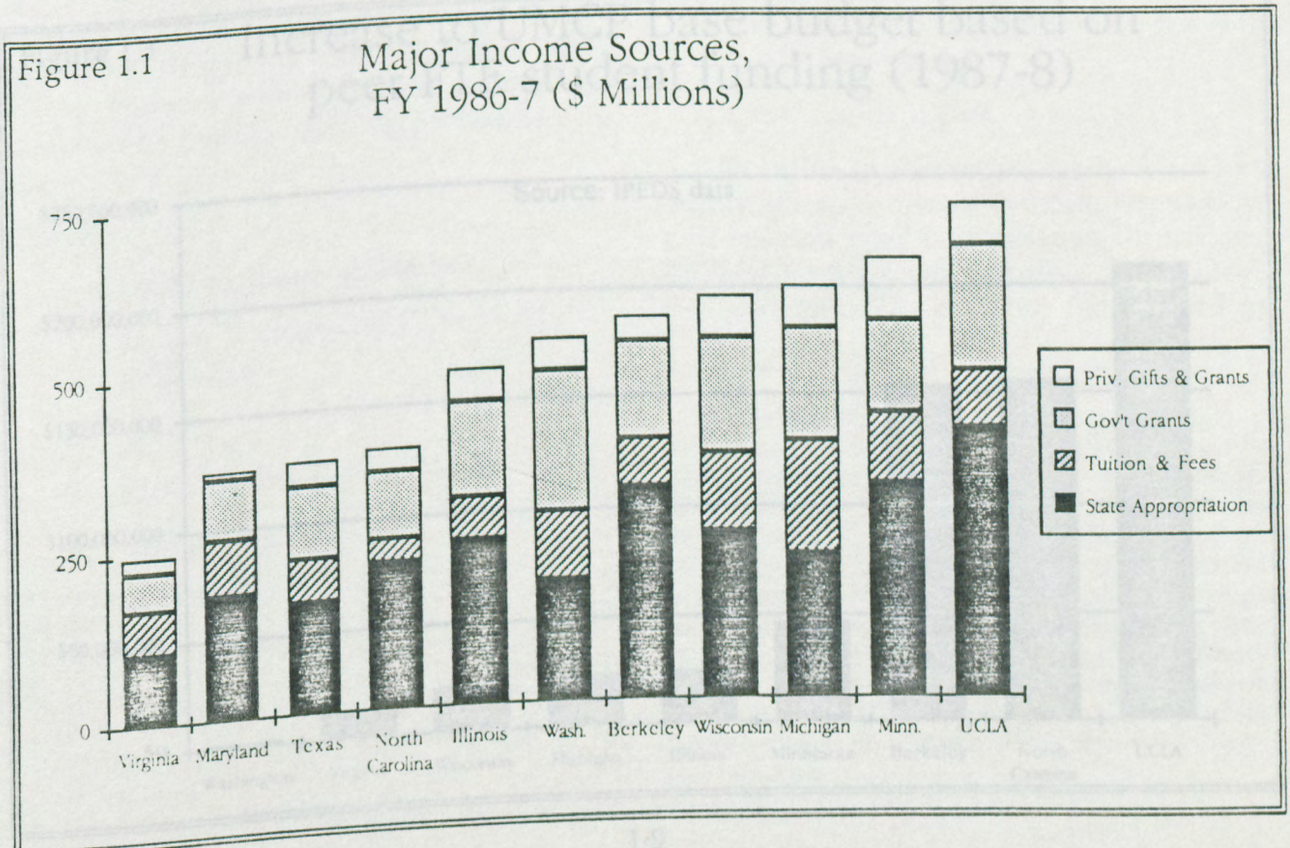
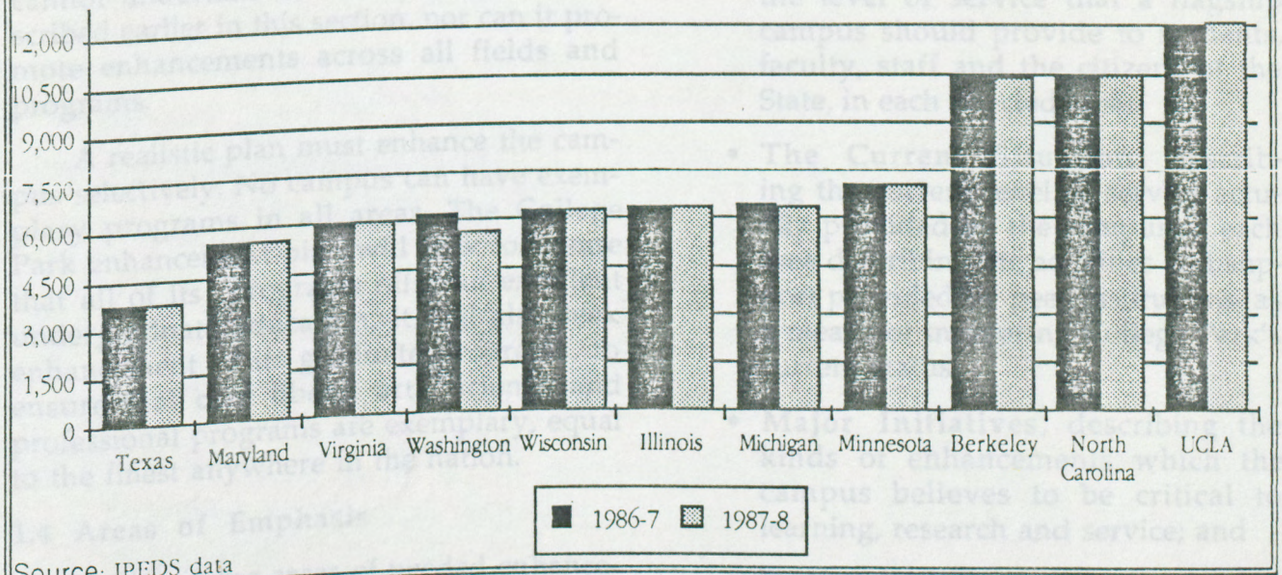


Figure 1.2

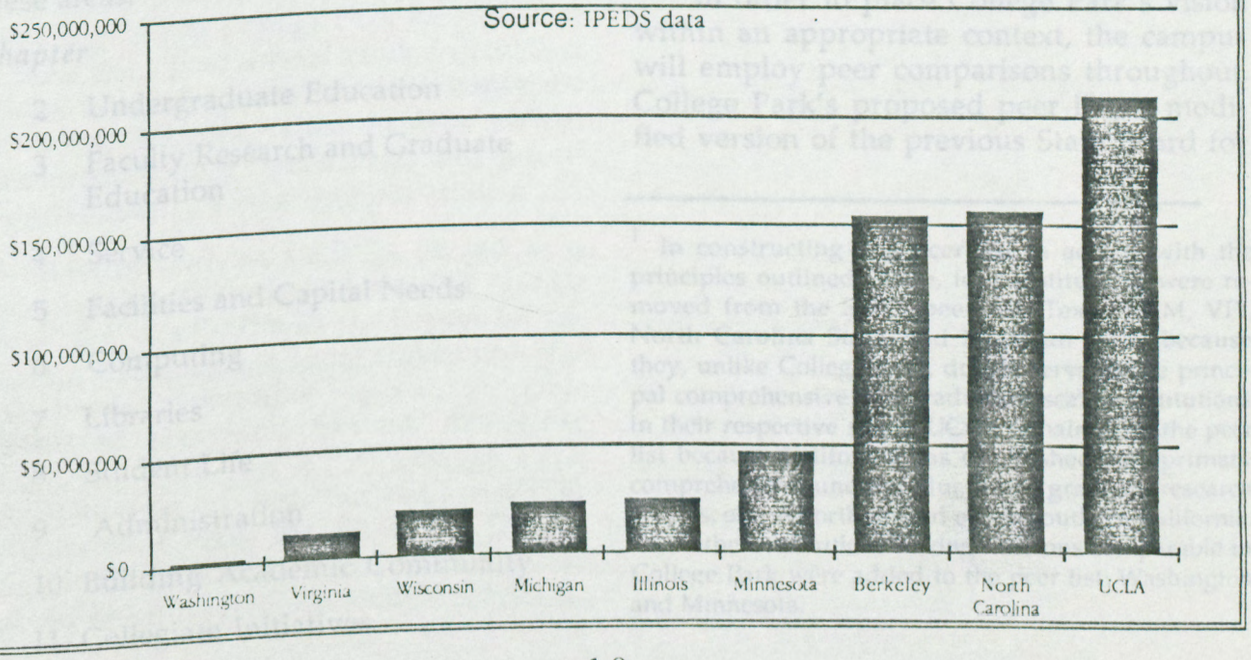
State Allocation Per Student FTE, 1986-7, 1987-8



Source: IPEDS data

Figure 1.3

Increase to UMCP base budget based on peer FTE student funding (1987-8)



lion.

Even though more enhancement funding at a level somewhat below our top peers would provide a significant increase in resources, it is clear that College Park cannot undertake all of the initiatives described earlier in this section, nor can it promote enhancements across all fields and programs.

A realistic plan must enhance the campus selectively. No campus can have exemplary programs in all areas. The College Park enhancement plan will seek to ensure that all of its programs offer an excellent undergraduate education. It will also seek enhancement of its graduate programs, to ensure that core liberal arts, science and professional programs are exemplary, equal to the finest anywhere in the nation.

1.4 Areas of Emphasis

In identifying areas of needed enhancement, the Plan is organized in a manner similar to the last principal campus-wide planning effort, the Middle States Self–Study. Successive chapters will describe enhancement needs and opportunities in these areas:

Chapter

2 Undergraduate Education

3 Faculty Research and Graduate Education

4 Service

5 Facilities and Capital Needs

6 Computing

7 Libraries

8 Student Life

9 Administration

10 Building Academic Community

11 Collegiate Initiatives

12 Resource Summary and Implementation Plan

Each chapter will follow a common outline:

- **Goals and Objectives,** outlining the level of service that a flagship campus should provide to students, faculty, staff and the citizens of the State, in each affected area;
- **The Current Situation,** describing the current level of service actually provided by the campus in each area describing the activities and support provided by peer institutions, as a means of measuring College Park's current status;
- **Major Initiatives,** describing the kinds of enhancements which the campus believes to be critical to learning, research and service; and
- **Resource Requirements,** describing how the campus plans to phase-in the programs and enhanced support proposed.

1.5 Peer Institutions

In order to place College Park's vision within an appropriate context, the campus will employ peer comparisons throughout. College Park's proposed peer list, a modified version of the previous State Board for

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[1] In constructing this peer list in accord with the principles outlined above, four institutions were removed from the SBHE peer list: Texas A&M, VPI, North Carolina State, and Michigan State, because they, unlike College Park, do not serve as the principal comprehensive and graduate research institutions in their respective states. UCLA remained on the peer list because California has established two primary comprehensive undergraduate and graduate research centers, one in northern and one in southern California. Two other institutions having missions comparable to College Park were added to the peer list: Washington and Minnesota.

Higher Education (SBHE) peer list, includes the flagship or primary comprehensive research campuses of major state university systems having missions, aspirations and enrollments comparable to those of the University of Maryland at College Park.

The peers proposed for comparative purposes include:

- Berkeley
- Illinois (Champaign-Urbana)
- Michigan (Ann Arbor)
- Minnesota
- North Carolina (Chapel Hill)
- Texas (Austin)
- UCLA
- Virginia
- Washington
- Wisconsin (Madison)

Sources of Information About College Park

This enhancement effort is based on the solid foundation of planning, research and analysis that College Park has conducted during the past several years. In addition to new analyses performed principally for this plan, the plan relies on documented recommendations, conclusions, and priorities established by other campus studies.

Materials whose findings served as a basis for this analysis include: the *Middle States Self-Study*, the Pease Report on reforming the undergraduate curriculum, facilities master-planning reports, the University of Maryland System *Academic Computing Plan*, the FY'90 College Park MARC budget request, the campus FY'90 Enhancement Plan, the *Five-Year Library Strategic Plan*, Library Advisory Committee reports, recent reports on student advising, the Honors Program, and admissions, and numerous self-studies conducted by the campus' Office of Institutional Studies.

Chapter 2: Undergraduate Education

> The campus must enhance the learning environment in which students will grow in mind and spirit and in their ability to participate effectively in the modern world. The campus needs to become more socially supportive, intellectually exciting, and academically rigorous. A leading mission of a great university is to develop students' curiosity and love of learning and equip them with the essential skills and approaches to knowing that will help them towards a lifetime of learning, social contribution, and personal fulfillment.
>
> – *Promises to Keep:*
> *The College Park Plan for Undergraduate Education*

2.1 Introduction

Undergraduate education is one of College Park's most important missions. Our success at educating undergraduates is one of the key indicators of how well we serve the citizens of the State. And promoting excellence across the College Park curriculum is one of the key emphases of this *Enhancement Plan.*

This chapter of the *Plan* discusses enhancements to undergraduate academic programs. The campus recognizes that excellence in undergraduate education is a function of what happens outside as well as inside of the classroom. Thus, this chapter also discusses the important role of academic support services in promoting academic excellence. Recognizing that the entire collegiate experience contributes to the intellectual and social formation of our students, a second chapter, Chapter 8, discusses those enhancements to student life needed to produce intellectually well–rounded and socially mature citizens.

A well-educated citizenry provides a state with its most important capital: civic, resource-skilled, inquiring, reasoning and adaptive people. The citizens of Maryland stand to gain substantially from proposed enhancements to undergraduate education. Apart from the direct benefits of a well-educated public, Maryland will gain other benefits, not the least among these, a substantial sense of pride that comes from the presence of a great educational institution.

Should the reforms discussed in this chapter prove successful, other benefits will accrue as well, including the more efficient and effective use of state resources which would accompany any efforts to improve in-state recruiting and the retention of qualified students.

As College Park becomes the educational preference of students throughout the state, Marylanders will save substantially on the direct costs of educating their children. And because students are most likely to obtain their first job within one hundred miles of their place of graduation, promoting educational excellence at College Park offers Maryland a way to invest in an important source of human capital: its best and most highly trained students.

2.2 Goals and Objectives

The quality of undergraduate education at Maryland is the outcome of several factors: the rigor, breadth, structure and emphasis of the core curriculum; the vigor and quality of academic instruction; the academic potential of students; and the availability of effective support services such as student advising to help students to clarify their own goals and to achieve their potential; and the dominant culture, ethos, and environment shaping student life on campus. To ensure a first-rate undergraduate educational experience, College Park must address several goals, including:

- **Strengthening the Undergraduate Curriculum.**
- **Improving Opportunities for Personal and Intellectual Development.**
- **Promoting Excellence and Innovation in Teaching.**
- **Improving Admissions.**
- **Improving Advising.**
- **Supporting Maryland's Best Undergraduates.**

2.3 Current Status

College Park has made significant progress in many areas of undergraduate education. The average SAT score for entering freshmen has risen by 100 points during the past decade. The current average is, for example, in the range of more on entering freshman at Chapel Hill. And College Park now enrolls a higher percentage of blacks in the freshman class than any other American Association of Universities institution. Consistent with these recent achievements, the enhancement of undergraduate education continues to be one of the most important priorities for the College Park campus.

Both nationally and at College Park, the quality of undergraduate education has been the focus of much recent attention. Several works published during the past several years, *Involvement in Learning: Realizing the Potential of Higher Education, Integrity in the College Curriculum: A Report to the Academic Community, College: The Undergraduate Experience in America,* and *The Closing of the American Mind* have sparked debate on a national level about the nature and focus of undergraduate education. Closer to home there have been several reports which have stimulated related discussions about the nature and focus of undergraduate education at Maryland. Including Higher Education: An Investment in Excellence (the *Report of the Governor's Commission on Excellence in Education,* the Hoblitzell report), *Promises to Keep: the College Park Plan for Undergraduate Education* (the Pease Report), *The Report of the Campus Senate ad hoc Committee on Academic Reorganization, and The Middle States Self-Study.*

The Middle States Self-Study. College Park's review of its undergraduate programs began in earnest in 1985, during the the College Park accreditation review, which resulted in the Middle States Self-Study. The Middle States report treated undergraduate education as one of its five areas of key focus. In reviewing undergraduate education, the Middle States committee found that:

- not all students understand the role of a general education in their overall degree programs;
- students often view general course requirements as unnecessary hurdles which must be cleared before they may take specialized courses in their chosen majors. They rarely see general education as an opportunity for growth and exploration;

- many undergraduate classes, particularly in the first two years, are too large to engage students in the learning process in a meaningful way; and
- campus priorities need to be articulated in such a way that the critical importance of the undergraduate curriculum is understood and valued by all faculty, staff and students.

The Hoblitzell Report. As did the Middle States Self-Study, the Governor's Commission also called for an improvement in undergraduate education. The report found that:

- College Park attracts fewer merit scholars than peer institutions;
- College Park undergraduates have, on average, lower SAT scores-lower than students at peer institutions; and
- College Park has often had a public reputation of being too large to deal effectively with its recruitment problems.

In addressing these issues, the Hoblitzell report made a recommendation of historic importance to education at College Park, that there be a 20% reduction in the number of undergraduates.

The Senate Committee on Undergraduate Education. In anticipation of a major reorganization of the campus, hearings were held by the Campus Senate to discuss the proposed reorganization of five divisions into fourteen colleges. These hearings revealed that faculty were concerned about the possible negative impact of the new college system on undergraduate education. Concern was expressed that the formation of fourteen separate units, organized around discrete academic disciplines, would weaken the general education of undergraduates.

As a result of these hearings, the Senate formed an ad hoc Committee on Undergraduate Education, chaired by Dr. John Pease. The Committee, working on a foundation established by other reports, concluded that:

- undergraduate education should have more focus;
- College Park should place a renewed emphasis on teaching; and
- given the trend towards specialized, focused and vocational professionalized majors, the identity of the baccalaureate degree should be strengthened as an important attainment in its own right, not simply as a step on the way to an advanced degree.

The Pease Report, like its predecessors, identified as problems the specialization of some of College Park's existing undergraduate programs. In view of these problems, the Committee recommended important changes in curriculum, pedagogy, administration, admission requirements, the learning environment, and the teaching milieu of undergraduate education. Based on the Pease report and other recent studies, the campus is undertaking a major restructuring of undergraduate education.

As did the *Middle States Self -Study,* the Pease Report has done more than identify problems with the undergraduate curriculum. Much of the focus of these reports is on creative, innovative undergraduate programs. The plan of action prepared by the Pease Committee would do any institution proud, emphasizing as it did, not simply problems which ought to be remedied, but significant advances in undergraduate education, including the addition of an exciting 'capstone' course at the conclusion of one's undergraduate years.

Other reports and studies, including the recent report written by the Committee on Undergraduate Women's Education

(chaired by Prof. Sandra Greer), and recent reports concerning admissions, advising, and the campus Honors program, have come to similar conclusions about the need to reform the undergraduate experience at College Park. In addition to the emphases noted above, these reports have concluded that educational reforms should also:

- emphasize a diversity of ethnic, social and gender-based perspectives;
- include non-Western cultures as part of the fundamental undergraduate experience;
- ensure that the College Park faculty is itself diverse enough to provide a variety of cultural perspectives and role models for students from diverse origins and backgrounds;
- strengthen foreign language and mathematical skills;
- place greater stress on active learning;
- balance a need to specialize in a major program of study early in the undergraduate career with a corresponding need for breadth and a more general education;
- ensure that College Park's undergraduates have a basic understanding of the methodologies and fundamental theories of modern science; and
- ensure that all students have a working familiarity with those computing tools considered essential productivity and problem solving aids across the curriculum.

2.4 Major Initiatives

2.4.1 Strengthening the Undergraduate Curriculum.

The campus should implement the recommendations of its two-year study of undergraduate education, *Promises to Keep: the College Park Plan for Undergraduate Education*. These recommendations include the development of freshman seminars and senior 'capstone' courses, emphasizing active learning through seminars, the aforementioned capstone courses and senior research projects; the reduction of class sizes, and integrating the traditionally narrow major into a broader, enriching undergraduate program of study. Furthermore, following the recommendations of the Committee on Undergraduate Women's Education, curriculum reform should seek to broaden the range of those cultural and gender-based perspectives considered essential to the undergraduate experience.

Enrollment Reduction. A particular area of concern for elevating the status of the University of Maryland relative to its peer institutions is the comparative ratio of students to faculty. The campus has begun a new program of enrollment management to reduce the overall undergraduate enrollment by 20%. The achievement of this goal will ensure that there can be greater access for students to faculty–an issue of primary concern in building excellence in undergraduate education. This reduction will improve our student faculty ratio from 27.93/1 to 21.32/1. Currently the State funding levels are being adjusted annually to offset the loss in tuition revenue resulting from the enrollment shifts. This provision of support to hold the College Park financially harmless must be continued to insure accomplishment of the goal of enhanced faculty contact.

Emphasis on General Education. Several curricular revisions have been proposed by the Committee on Undergraduate Education and approved by the College Park Campus Senate. These revisions are designed to give renewed emphasis to the general education core of the undergraduate curriculum. The purpose of these reforms is to integrate the major more fully

into the general course of undergraduate study.

Fundamental Studies. In addition to the continuation of the present English and mathematics requirements, experimental seminars will be offered which introduce first year students to the learning process and provide students with a small class dealing with a few primary texts or central concepts taught by a full-time faculty member.

Distributive Studies. While the Distributive Studies courses cover the broad areas of knowledge that each student should be familiar with (arts and humanities, behavioral and social science, and natural science), they should do so in the context of the general education goals. Courses will be restructured, as necessary, to acquaint students with central ways of seeing, conceptualizing, and knowing a significant portion of the world. Each course will give historical and epistemological perspectives of the discipline area and identify its relationship to other disciplines. In addition, alteration of the required number of credit hours in Distributive Studies is recommended in order to broaden the liberal arts and sciences perspectives of the student.

Advanced Studies. To continue the experience of broadening general education into a student's junior and senior years, courses should be offered which address social and ethical problems within majors as well as capstone courses designed to assist students in synthesizing their educational experience.

2.4.2 Improving Opportunities for Personal and Intellectual Development.

Recognizing that much that is fundamental to the educational process takes place outside of the classroom, the campus will expand programs and services designed to enrich the entire undergraduate experience. Programs might include: opportunities for faculty/student interaction outside of class, special lectures, concerts and related cultural events, leadership programs, internships, and opportunities for service. (See Chapter 8.)

2.4.3 Improving Admissions.

Outreach and Information. It is the quality and diversity of students that determines much about the character and ethos of a great university. As part of its enhancement efforts, the campus will consider improving its admissions activities. In so doing, the campus will seek to attract the state's most talented students through improved public relations, outreach, and enhanced relations with Maryland's secondary school system; will offer appropriate programs and counseling services to ensure that students entering College Park are aware, of the range of the campus' academic programs. Enhancing admissions and altering procedures will also reduce the problems associated with overcrowded majors.

Nurturing Diversity. In order to effectively accommodate the current and anticipated shifts in the composition of student body, efforts must be made to insure greater responsiveness to women, and to blacks, and other minorities on campus. This involves not only attending to the ways in which all members of the campus community are treated in the educational process but also incorporating the perspectives and contributions of women, blacks, and other minorities into the curriculum, as has recently been proposed by the Chancellor's Committee on Undergraduate Women's Education (the Greer Committee).

Admissions programs should seek to create a culturally, socially and ethnically heterogeneous student body reflecting the rich diversity of Maryland and of America, and should seek to create special opportunities for those segments of our society which have

into the general course of undergraduate study.

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not traditionally been well-served by higher education.

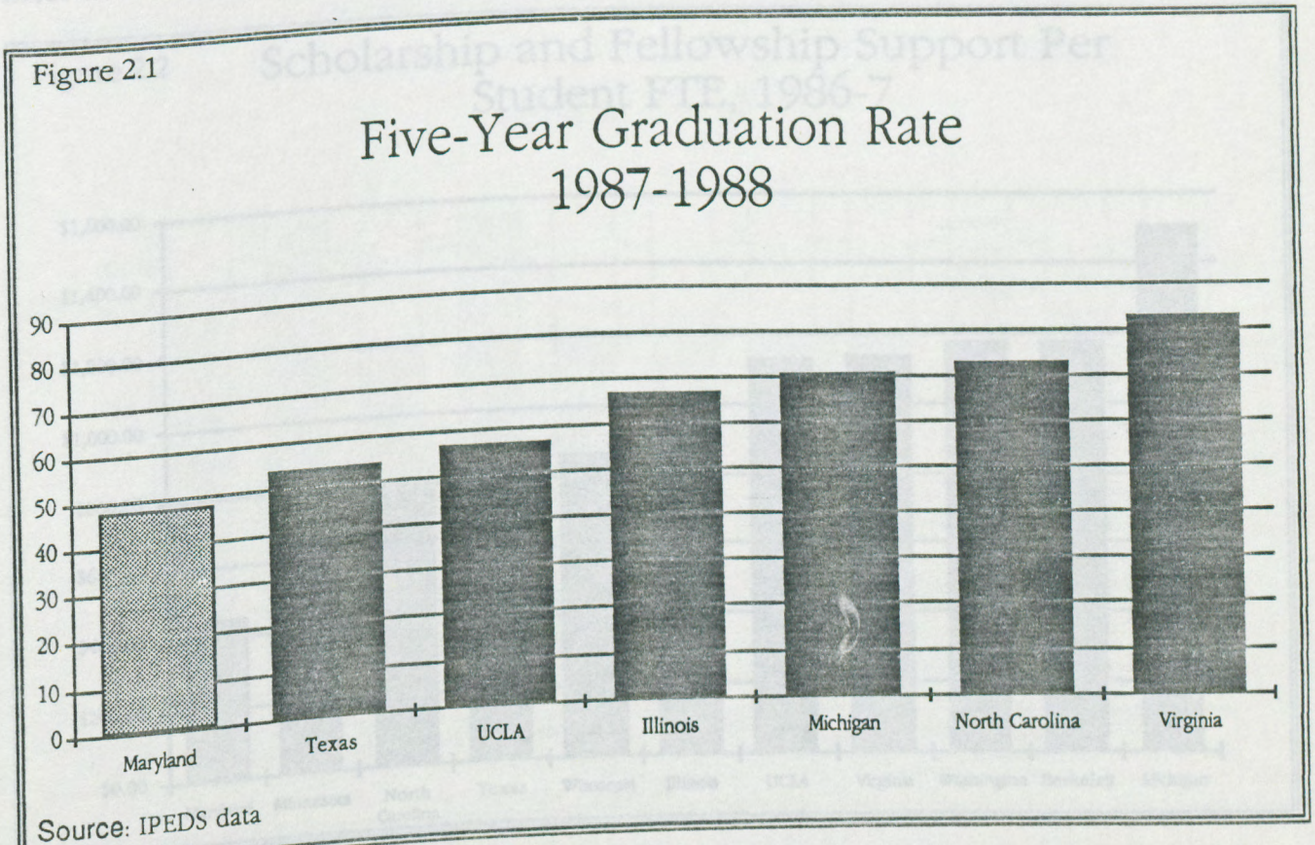
2.4.4 Improving Advising.

Reports concerning undergraduate education have consistently stressed a need to enhance advising programs. These reforms should be designed to encourage students to view the collegiate experience as a special, unique opportunity and to make appropriate undergraduate curriculum choices. Improved advising would encourage students to build a strong foundation on a well-rounded liberal arts education, before making substantial headway with the more specialized emphasis of the major field. Breadth obtained in a good general education should complement the depth provided by the various major fields of study. Thus, advising could, on the one hand, inform students of the need to specialize early to enter certain majors and, on the other hand, encourage students to seek those opportunities for enrichment found in a course of study emphasizing breadth, diversity, and the joys of unprogrammed discovery.

But the domain of advising must include far more than questions of curricular choice. Enhancements should also be made to those services which help students to persist in their educations until graduation, and to make appropriate career choices upon graduation.

2.4.5 Promoting Excellence and Innovation in Teaching. Curriculum reform will only be as successful as the instructors who implement it. In parallel with curriculum reform, the campus should renew its emphasis on teaching, particularly in faculty rewards, promotion, and tenure; ensure that faculty have appropriate opportunities to design innovative courses having active learning as a central focus, and courses drawing upon insights from many cultures and points of view, and have access to specialized assistance in so doing; and that faculty have access to appro-

Figure 2.1



Source: IPEDS data

priate instructional facilities and materials, including a well-stocked library and modern computing tools.

To improve the quality of instruction, a campus-wide center for the support and improvement of teaching should be established. Such a center could be designed to assist faculty in understanding the learning process and in developing instructional strategies which reflect that understanding. Where appropriate, the Computer Science Center's Office of Instructional Computing (ICP) may be made available to assist departments in determining the appropriateness of integrating computer-based instructional materials into newly redesigned courses.

2.4.6 Supporting Maryland's Best Undergraduates.

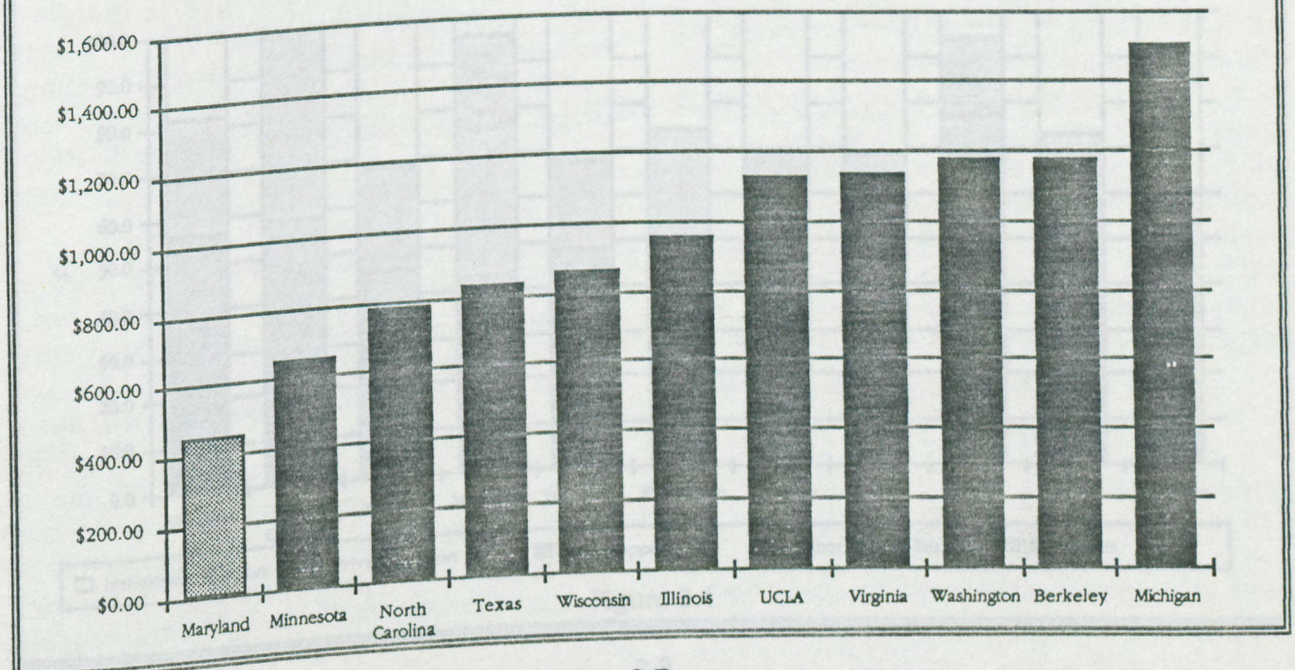
Beyond recruitment, College Park will expand its efforts to retain and nurture the most talented students in the State of Maryland. The higher education reorganization bill calls on College Park to admit a freshman, highly qualified student with exceptional ability. Specific programs to attract and nurture Maryland's best undergraduates will include enhancing campus Honors program and expanding undergraduate scholarship opportunities.

Retention Programs. The quality of an institution is determined to a very large degree not only by the quality of the students which it admits, but the success it has in supporting those students during their undergraduate years.

Promoting excellence at College Park requires that the campus retain and nurture those who are admitted. At present, as Figure 2.1 illustrates, the Campus has the lowest five-year graduation rate of any of its peer institutions for whom information is available.

Retention efforts require improved ac-

Figure 2.2 Scholarship and Fellowship Support Per Student FTE, 1986-7



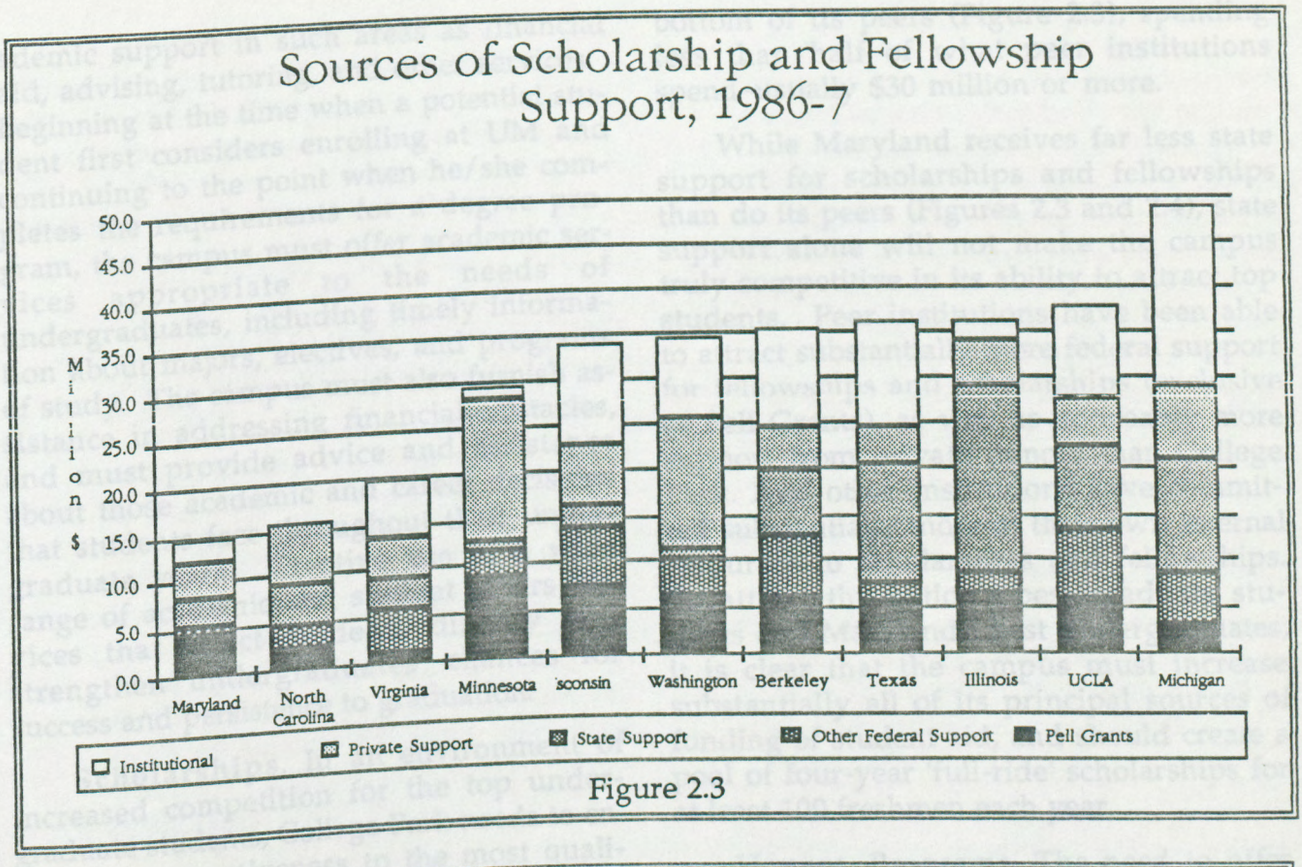


Figure 2.3

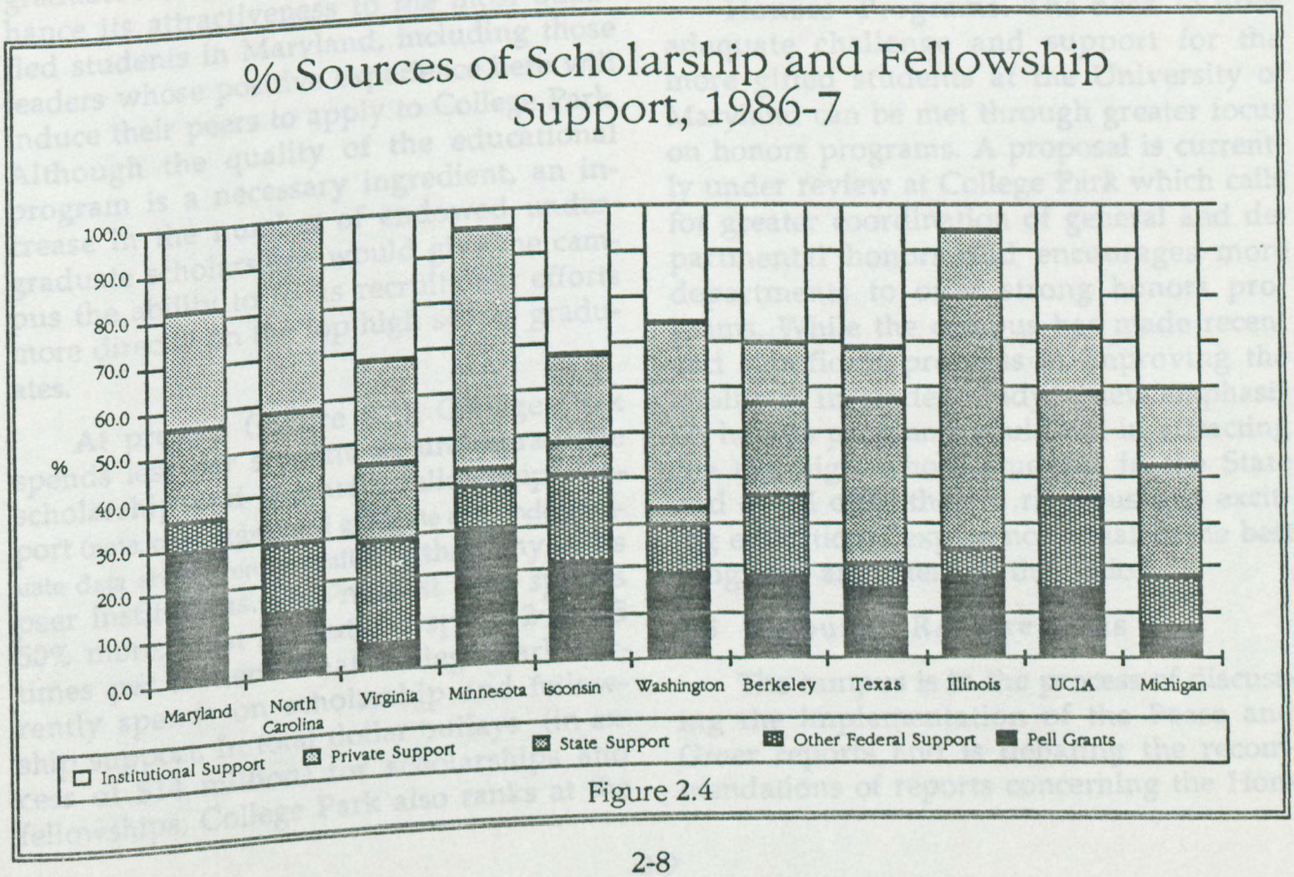


Figure 2.4

ademic support in such areas as financial aid, advising, tutoring, and other services. Beginning at the time when a potential student first considers enrolling at UM and continuing to the point when he/she completes the requirements for a degree program, the campus must offer academic services appropriate to the needs of undergraduates, including timely information about majors, electives, and programs of study. The campus must also furnish assistance in addressing financial obstacles, and must provide advice and assistance about those academic and career decisions that students face throughout their undergraduate years. Creative use of a wide range of academic and student affairs services that affect students directly will strengthen undergraduates' chances for success and persistence to graduation.

Scholarships. In an environment of increased competition for the top undergraduate students, College Park needs to enhance its attractiveness to the most qualified students in Maryland, including those leaders whose positive experience here will induce their peers to apply to College Park. Although the quality of the educational program is a necessary ingredient, an increase in the number of endowed undergraduate scholarships would give the campus the ability to focus recruitment efforts more directly on the top high school graduates.

At present (Figure 2.2), College Park spends less per student on undergraduate scholarship and graduate fellowship support (note: only aggregated graduate and undergraduate data are currently available) than any of its peer institutions. Our nearest peer spends 50% more; most institutions spend 2 to 2.5 times per student what College Park currently spends on scholarship and fellowship support. In total dollar outlays (in excess of $14 million) for scholarships and fellowships, College Park also ranks at the bottom of its peers (Figure 2.3), spending less than half of what peer institutions spend–usually $30 million or more.

While Maryland receives far less state support for scholarships and fellowships than do its peers (Figures 2.3 and 2.4), state support alone will not make the campus truly competitive in its ability to attract top students. Peer institutions have been able to attract substantially more federal support for fellowships and scholarships (exclusive of Pell Grants), as well as noticeably more support from private donors than College Park. And other institutions have committed substantially more of their own internal resources to scholarships and fellowships. To attract the nation's best graduate students and Maryland's best undergraduates, it is clear that the campus must increase substantially all of its principal sources of funding of student aid, and should create a pool of four-year 'full-ride' scholarships for at least 100 freshmen each year.

Honors Programs. The need to offer adequate challenge and support for the more gifted students at the University of Maryland can be met through greater focus on honors programs. A proposal is currently under review at College Park which calls for greater coordination of general and departmental honors and encourages more departments to offer strong honors programs. While the campus has made recent and significant progress in improving the quality of its student body, a new emphasis on honors programs could aid in attracting the top high school students in the State and could offer them a rigorous and exciting educational experience equal to the best programs anywhere in the nation.

2.5 Resource Requirements

The campus is in the process of discussing the implementation of the Pease and Greer reports and is debating the recommendations of reports concerning the Hon-

ors Program, Advising, and Admissions. Resources required to enhance undergraduate education will depend, to a great degree, on campus approval of these initiatives. The possible costs associated with undergraduate enhancement include:

- Implementing the Pease Report: $650,000 in start-up costs, and $3,500,000 to $7,400,000 in annual costs (APAC estimates), including 75 new faculty lines;

- Implementing the Greer Report on the education of undergraduate women: $2,900,000 over three years. The actual implication of the Greer Report for the Enhancement Plan will depend upon which of the report's initiatives have been implemented prior to FY'91, how many new initiatives remain to be implemented, and how much the campus has approved of ongoing costs.

- Continuing the reduction in undergraduate enrollment will require $2.26 million in FY'91, $1.22 million in FY'92, $506 million in FY'93, and $33,000 in FY'94.

- Implementing admissions and advising recommendations will require, principally, additional lines and funds to secure faculty released time. Costs of enhancing admissions and advising have been estimated as including: $780,000 to $950,000 for between twenty-four and thirty professional advisors and between thirty and thirty-five faculty advisors; an additional $75,000 to $100,000 for advisors at those professional colleges admitting freshmen; and start-up costs (furniture and computer workstations) of $100,000.

- Enhancing the Honors Program will require, primarily, faculty released time and new faculty lines. Overall costs have not been estimated.

- Recruiting and supporting a diverse and talented student body will require a substantial addition to funding for scholarships. In addition to tuition, competitive merit scholarships amount to approximately $6,000 annually, for each of the four undergraduate years. At present, the campus typically offers non-stipendiary tuition fellowships. A serious recruitment program will require the creation of a pool of new 100 well-supported 'full-ride' four-year undergraduate merit scholarships for each freshman class (400 scholarships active at any given time).

- Increasing minority enrollments will require at least $150,000 per year to enlarge the pool of Banneker and Douglass scholarships, and $130,000 per year in associated support costs.

- In addition to scholarship support, undergraduate recruiting efforts will require at least two additional FTE lines. And commitment to campus-sponsored desegregation efforts will require at least ten faculty and ten staff lines for minority faculty recruitment and retention.

- Given the importance placed on undergraduate educational reform, a significant increase in the operating budget for the Office of the Dean of Undergraduate Studies will be required if the campus is to implement successfully admissions, advising, Honors, and curriculum enhancement programs. Improved retention and academic support services will require an increase in lines and operating budget for all of those Undergraduate Studies units contributing to a comprehensive undergraduate program.

Chapter 3: Faculty, Research and Graduate Education

> The extraordinary stakes in faculty recruitment in the sciences and engineering are a phenomenon that many college officials say has become a serious problem only in the past five years... The cost of faculty recruitment in engineering and the sciences is rising for several reasons. First, setting up faculty members in laboratories requires more sophisticated and expensive equipment today than it ever has before. But another major factor is simply that too many institutions are competing for too few candidates.
>
> A mass retirement of faculty members projected for the 1990's is beginning to be felt today at some institutions, which are competing for a shrinking pool of candidates to replace those hired in the 1950's and 1960's. Increasingly, scientists earning doctoral degrees in science and engineering fields are choosing careers outside of academe...
>
> Although increasing start-up costs are most staggering in the science and engineering fields, the phenomenon is not limited to those areas. It is costing more and more money to begin research in disciplines with lower research costs, such as English and history. Some new faculty members in the humanities and social sciences require several thousand dollars to purchase computers, expand libraries and databases, and for travel.
>
> – *The Chronicle of Higher Education*, October 5, 1988, pp. A18-A19.

3.1 Introduction

As the flagship campus of the Maryland's system of public higher education, College Park is the State's primary center of graduate education and research. The quality of its service to the State and to the private sector and its national reputation for excellence is dependent largely on the quality of its faculty and its graduate research programs.[1]

3.2 Goals and Objectives

- **Recruiting and Retaining the Nation's Leading Faculty Members**
- **Providing a Level of Departmental Operating Support Capable of Sustaining Quality**
- **Providing Facilities Adequate for State of the Art Research**

[1] The campus has not conducted any studies of graduate education and research comparable to the Middle States or Pease reports on undergraduate education. Thus, the campus, as a whole, has discussed or debated the relative priority to be accorded to graduate studies, nor the resources needed to enhance graduate education. Given limited resources, the simultaneous emphases on enhancing undergraduate programs and on expanding graduate studies may have to be balanced by APAC and other campus planning, to ensure a consistent and clear set of programmatic and enhancement priorities.

- **Attracting and Supporting the Nation's Best Graduate Students**

3.3 Current Status

Faculty and Research. During the past two decades, the College Park campus has attracted–by any measure–a distinguished faculty. During the past decade alone, campus faculty have won two Pulitzer prizes, sixteen Sloan fellowships, and twenty-six Guggenheim fellowships. Since 1984, fourteen College Park faculty have been selected by NSF to receive Young Presidential Investigator awards. Support for external research has nearly tripled since 1980, and now stands at more than $80 million. Because of the strength of our faculty, our colleges are highly ranked and regularly win distinguished and competitive awards. Today, College Park is ranked third among public institutions without a medical school in the amount of federal research funds, and is among the top dozen U.S. universities in the number of competitive research awards received. College Park has moved aggressively to take advantage of its external research support which, through the College Park Designated Research Initiative Fund (DRIF) program, has made substantial portions of the overhead received from research grants and contracts available to campus faculty to support new research activities.

The stature of a campus–its external reputation and its internal sense of intellectual community and scholarly pride–are only as strong as its faculty. And College Park has built an excellent, highly regarded faculty. But, in the decade to come, will the campus be able to retain the excellence which it has worked so hard to achieve?

During the 1990's, both nationally and at College Park, many senior faculty will retire. In order to maintain teaching programs and the excellence of existing research activities, the nation's leading universities will engage in a significant competition to attract faculty at all ranks, from promising assistant professors through full professors of international stature.

Table 3.1 projects retirement trends at College Park throughout the 1990's. It is probable that by the mid-1990's, a significant number of faculty will retire from College Park. These numbers should be viewed as a minimum estimate of potential faculty losses, for, given national trends, in all probability, other leading faculty may be tempted to leave College Park for positions elsewhere, as the marketplace for faculty becomes increasingly competitive, both as regards salaries and research facilities and support.

To a significant extent, the historic success of the campus in attracting top faculty has been based on a number of factors unrelated to the compensation, benefits and research opportunities offered by the campus. From the mid-1970's through the recent past, the relatively unfavorable job market for Ph.D.'s in many fields (apart from the sciences and engineering) made the academic job market a buyer's market. This market allowed College Park to build an excellent faculty, recruited from the leading institutions in America. At the same time, the closeness of the campus to Washington, D.C. has been of great benefit to faculty recruitment efforts in all fields. The rich cultural opportunities of the Baltimore-Washington area, coupled with the benefits of proximity to leading libraries, museums, funding agencies, and research organizations has been a major source of attraction for prospective College Park faculty.

The factors that enabled College Park to attract and retain a distinguished faculty cannot be counted to work as strongly in the campus' favor in the years to come. As was indicated above, the market for faculty

will shortly become very competitive. In the sciences and engineering, to a large extent, the market has already become a seller's market, as universities compete with each other and with the private sector for qualified engineers and scientists. And the university world has, for some time, already experienced difficulties in offering compensation and benefits packages which are competitive with the private sector.

The Washington, D.C. metropolitan area may also offer less of an incentive for faculty to work at College Park. The area's cost of living is one of the highest in the nation. The rapid rise of housing costs makes it increasingly difficult to attract and retain younger faculty or faculty considering relocating from areas of the country in which living costs, particularly housing, are substantially lower.

To compete in the years to come, the campus cannot assume that a surplus of recently minted Ph.D's and the advantages of the nation's capital will continue to work in the campus' favor. Attracting and retaining faculty will require competitive benefits and affordable housing.

Will the campus be able to recruit and retain talented faculty members in the decade to come? To a large degree, our ability to attract and retain America's best faculty depends on the overall 'package' of salary, benefits, space, equipment and research support available to faculty.

If peer comparisons are any guide, the campus is not as well-positioned as it ought to be to compete for faculty. Figures 3.1, 3.2,

Table 3.1

Potential Retirements: % of Faculty Turning 70 Between 1988 and 1997

College	Associate Professors	Full
Agriculture	13.5	6.8
Architecture	0.0	20.0
Arts and Humanities	9.4	22.9
BSOS	5.6	12.5
Business and Management	5.6	13.6
CMPS	11.1	17.6
Education	6.8	24.3
Engineering	0.0	7.9
Human Ecology	10.0	12.5
Journalism	0.0	25.0
CLIS	0.0	20.0
Life Sciences	0.0	19.3
Phys Ed	8.3	11.1
Public Affairs	0.0	0.0

Source: Data collected by Institutional Studies

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Source: Data collected by Institutional Studies

Figure 3.1

Fall 1986 Assistant Professor Salaries

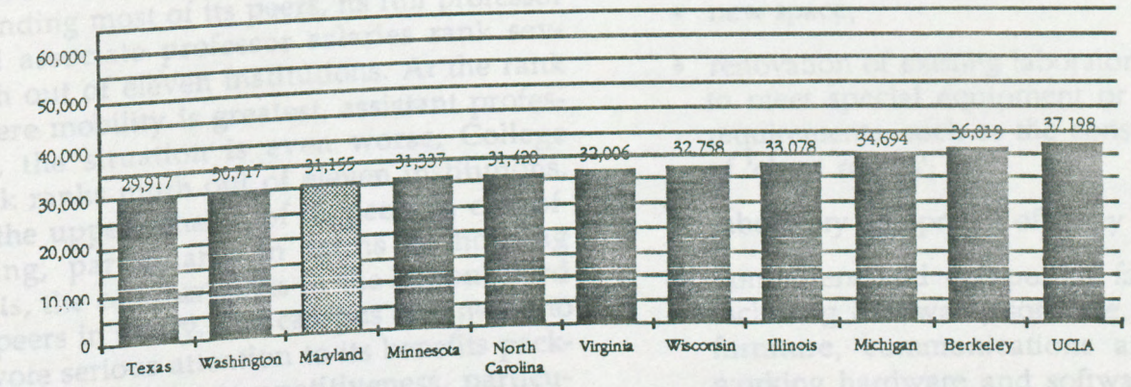


Figure 3.2

Fall 1986 Associate Professor Salaries

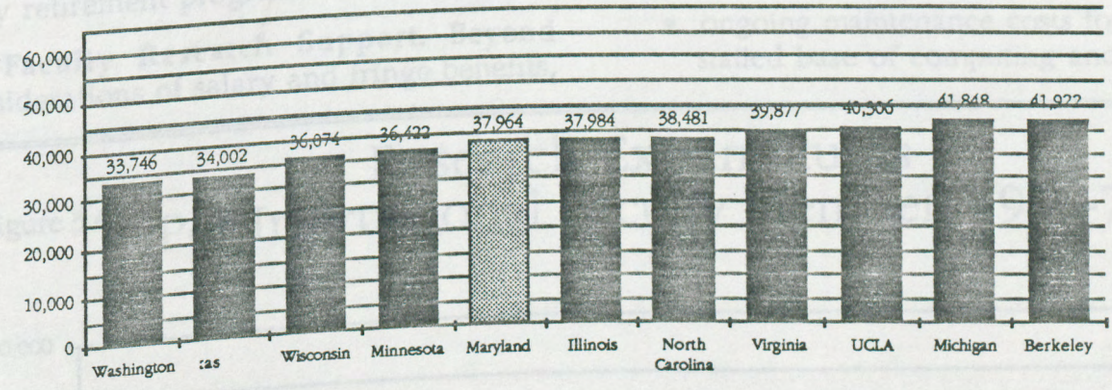
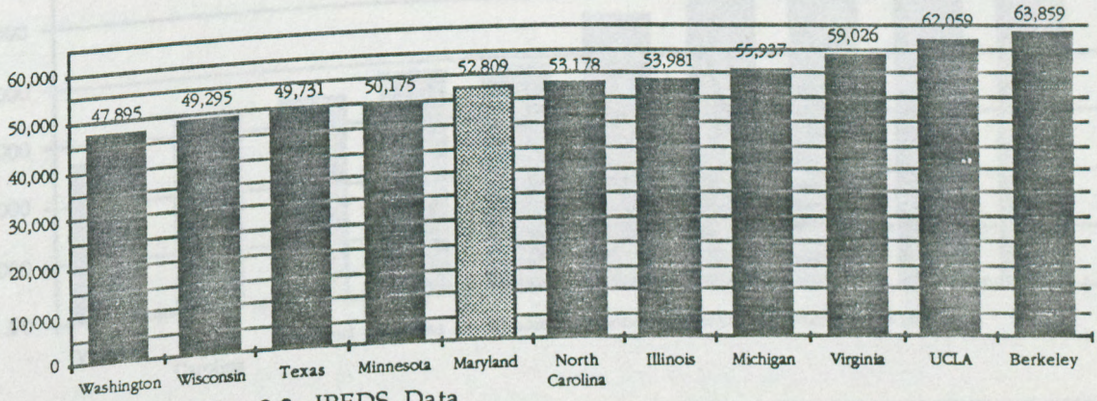


Figure 3.3

Fall 1986 Full Professor Salaries



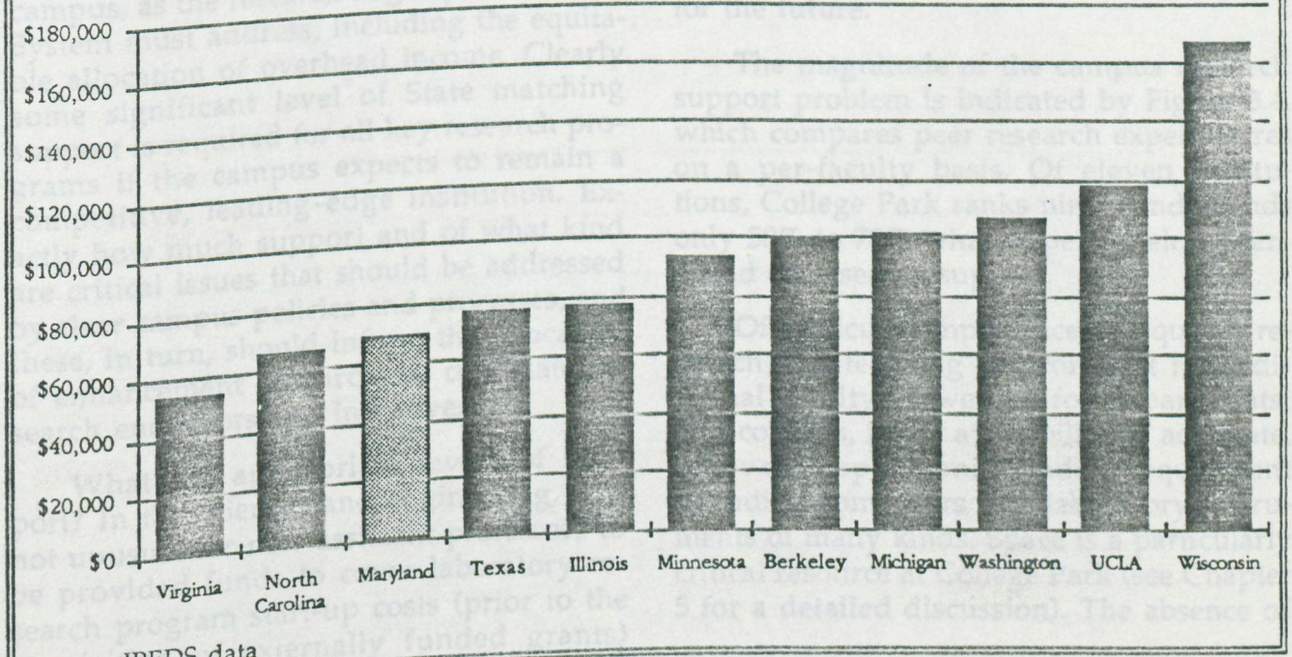
Source for Figures 3.1 - 3.3: IPEDS Data

and 3.3 compare average faculty salaries by rank at peer institutions. Although College Park's cost of living exceeds the areas surrounding most of its peers, its full professor and associate professor salaries rank seventh out of eleven institutions. At the rank where mobility is greatest, assistant professor, the situation is even worse; College Park ranks ninth out of eleven institutions. In the upper echelon of its peers in cost-of-living, particularly in terms of housing costs, the campus ranks in the bottom third of peers in salary. The campus also needs to devote serious attention to its benefits package to ensure its competitiveness, particularly in such areas as offering 'cafeteria-plan' benefits allowing faculty and staff a great measure of choice in tailoring benefits to individual needs, and to retirement and early retirement programs.

Faculty Research Support. Beyond considerations of salary and fringe benefits, institutions must be able to offer competitive research support. The components of such support frequently include:

- new space;
- renovation of existing laboratory space to meet special equipment or project requirements, such as the construction of 'clean rooms';
- laboratory equipment of many kinds;
- computers and computing facilities, including hardware, software, special furniture, communications and networking hardware and software, specialized instrument interfaces, and staff support;
- support for graduate students and research assistants;
- ongoing maintenance costs for the installed base of computing and labora-

Figure 3.4 Research Expenditures Per Instructional Faculty Member, 1986-7



Source: IPEDS data

tory equipment;

- skilled technicians;
- operating funds to support travel and miscellaneous expenses; and
- 'bridge' grants to permit research to continue between the close-out of one grant or contract and the initiation of another award.

External research is essential to excellence in the sciences and engineering. At the same time, the receipt of significant external grants places a potential support burden on the campus, particularly when the campus has promised to match external awards with a certain level of internal support. While of fundamental importance to the health of the campus, the presence of external research awards cannot, on an *a priori* basis drive campus funding priorities, nor can the campus make expensive research projects 'riskless' activities by guaranteeing State support regardless of the level of external support actually received.

Nevertheless, there are serious issues of base State research support which the campus, as the research flagship of the State System must address, including the equitable allocation of overhead income. Clearly some significant level of State matching support is required for all key research programs if the campus expects to remain a competitive, leading–edge institution. Exactly how much support and of what kind are critical issues that should be addressed by clear campus policies and processes, and these, in turn, should inform the allocation of enhancement resources to collegiate research endeavors and initiatives.

What are appropriate levels of support? In the sciences and engineering, it is not unusual for new assistant professors to be provided funds to cover laboratory research program start-up costs (prior to the acquisition of externally funded grants) amounting to $250,000 or more. Junior faculty in engineering are, on occasion, awarded three-year start-up packages amounting to $300,000 for equipment alone. According to the previously cited *Chronicle of Higher Education* article on research support, senior faculty, lured from other institutions, may require as much as $500,000 to $1,000,000 in start-up costs.

In these critical areas, College Park's level of support is not competitive with peer institutions. For certain kinds of support, such as the availability of start-up funding for new scientists and engineers, the campus has only begun to develop sources of support, policies, and programs. The College of Engineering, by itself, estimates, at current rates of hiring and attrition (not counting potentially accelerated rates of faculty attrition in the future), that it will need $1 million per year to recruit one or two distinguished researchers annually. Clearly, given the magnitude of funding needed to remain competitive, the campus should give serious attention to enhancing its faculty recruitment and retention funds across all key program areas now, to begin to build an appropriate base for the future.

The magnitude of the campus research support problem is indicated by Figure 3.4, which compares peer research expenditures on a per-faculty basis. Of eleven institutions, College Park ranks ninth, and spends only 50% to 70% what upper echelon peers spend on research support.

Of particular importance to a quality research and teaching environment for individual faculty as well as for departments, and colleges, is the availability of adequate, renovated space and modern equipment including computers and laboratory instruments of many kinds. Space is a particularly critical resource at College Park (see Chapter 5 for a detailed discussion). The absence of

adequate space has served as an obstacle to hiring faculty and the growth of campus programs in such areas as superconductivity and semiconductor physics and engineering, and has undoubtedly curtailed the expansion of other leading programs as well. The magnitude of space problems has been well established for a number of colleges. The College of Engineering, for example, (Figure 3.5) has one-half to one-quarter the physical space per faculty member than most of peer institutions having leading colleges of Engineering. When one notes that the College has a shortage of faculty compared to peers (typically 60% to 70% of peer institutions), and has twice the student:faculty ratio of peers, the magnitude of the problem becomes even more obvious. Were the College staffed near the level of peers, typical peers would enjoy four to six times the amount of space allocated to engineers at College Park. The College of Engineering is one of many colleges lacking usable space. Many faculty in Arts and Humanities, for example, lack private offices, not to mention space adequate to support significant projects.

Support for the acquisition of equipment is as limited as support for space to house equipment. Figure 3.6 compares the value of newly acquired equipment across College Park's peer institutions. Although certain institutional equipment inventories are inflated compared to College Park, because of the difficulty in removing medical schools from institutional totals, nevertheless, the campus equipment inventory is well behind most peer institutions–even those peers lacking medical schools such as Berkeley, Wisconsin and Illinois.

Figure 3.6 clearly demonstrates that even excluding from consideration historic underfunding at College Park, the recent (1986-7) resources available to the campus have not allowed Maryland to provide an environment competitive with peers. Typically, College Park has been able to acquire one-third to one-half of the equipment acquired by leading peers. And, on a per-FTE student basis (Figure 3.7), our recent equipment acquisitions again lag well behind almost all peer institutions, by a wide margin, affecting the quality of our

Figure 3.5

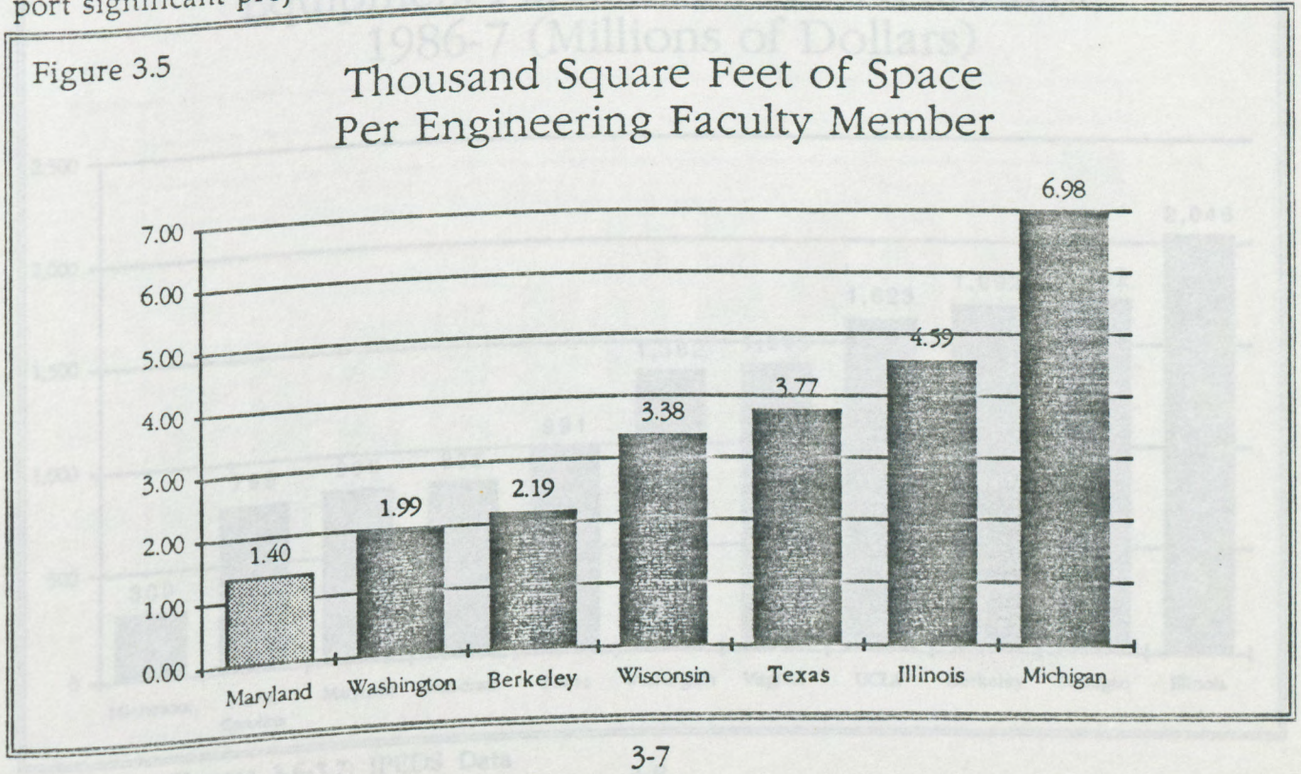


Figure 3.6

New Equipment Acquired 1986-7 (Millions of Dollars)

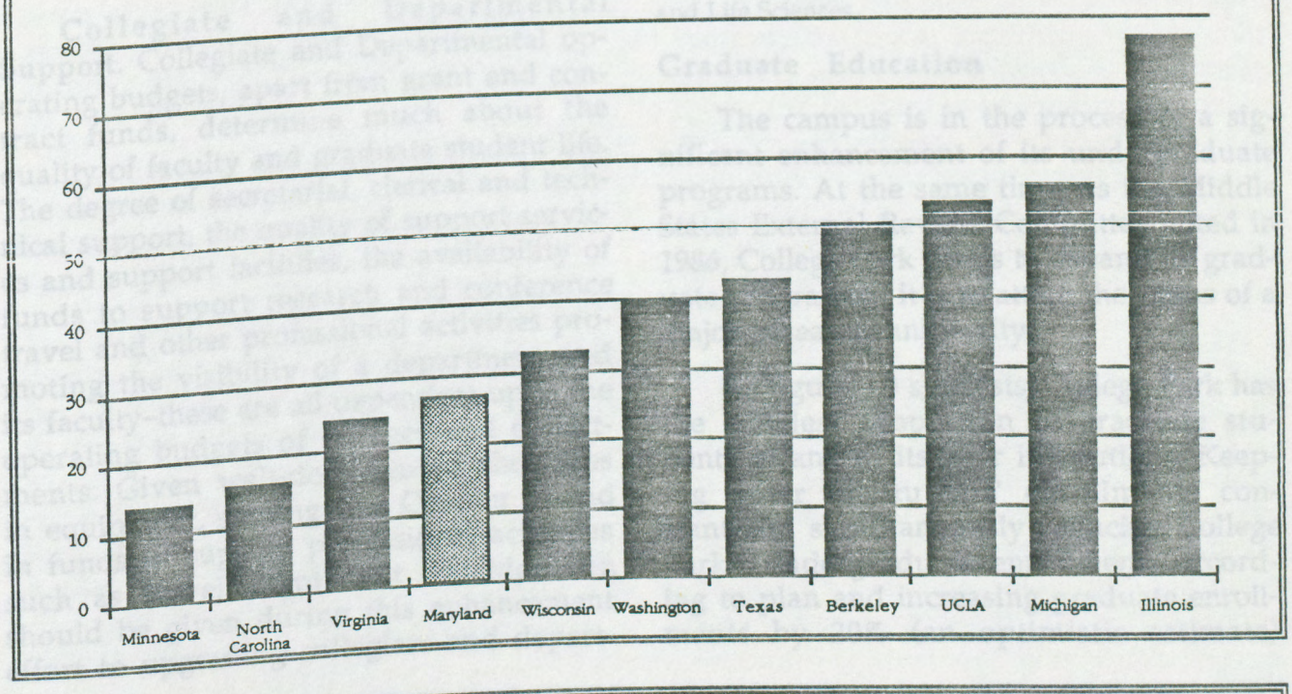
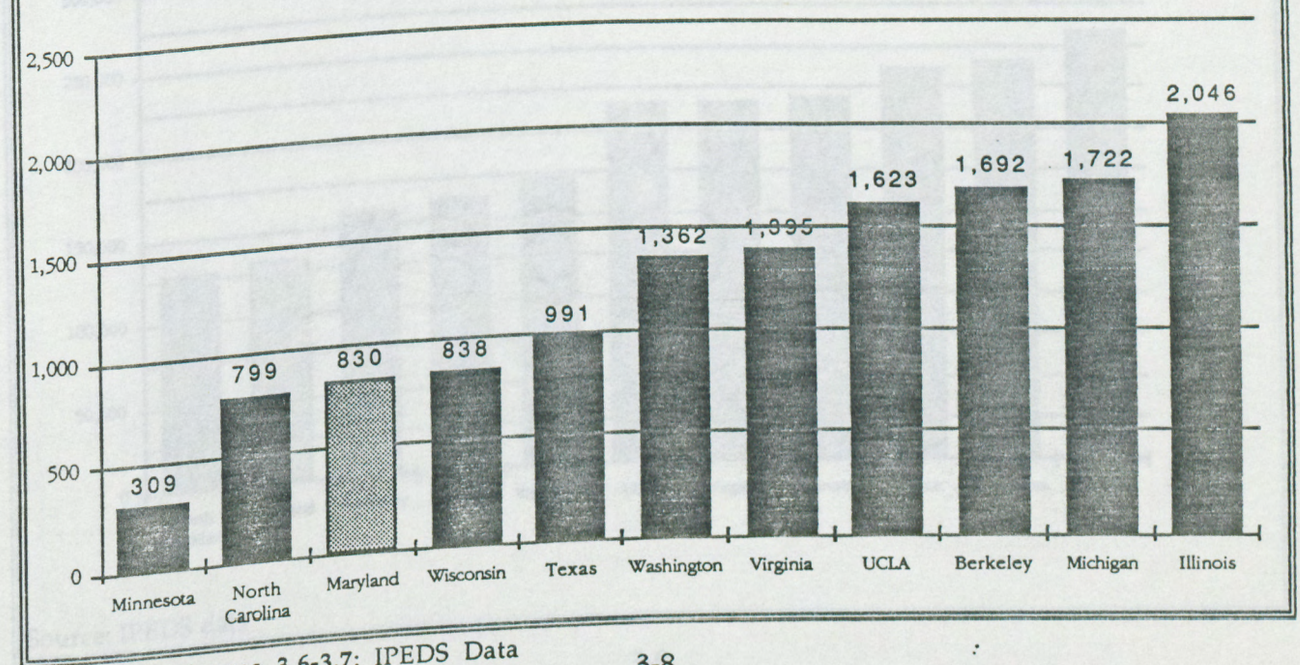


Figure 3.7

Equipment Purchased Per FTE Student, 1986-7 (Millions of Dollars)



Source for Figures 3.6-3.7: IPEDS Data

instructional programs. On a per-faculty basis, our recent equipment acquisitions are tenth out of eleven institutions (Figure 3.8).

Collegiate and Departmental Support. Collegiate and Departmental operating budgets, apart from grant and contract funds, determine much about the quality of faculty and graduate student life. The degree of secretarial, clerical and technical support, the quality of support services and support facilities, the availability of funds to support research and conference travel and other professional activities promoting the visibility of a department and its faculty–these are all dependent upon the operating budgets of colleges and departments. Given well-documented shortages in equipment, staffing (see Chapter 9) and in funds to support professional activities such as travel, significant consideration should be given during this enhancement effort to upgrading collegiate and departmental support budgets.

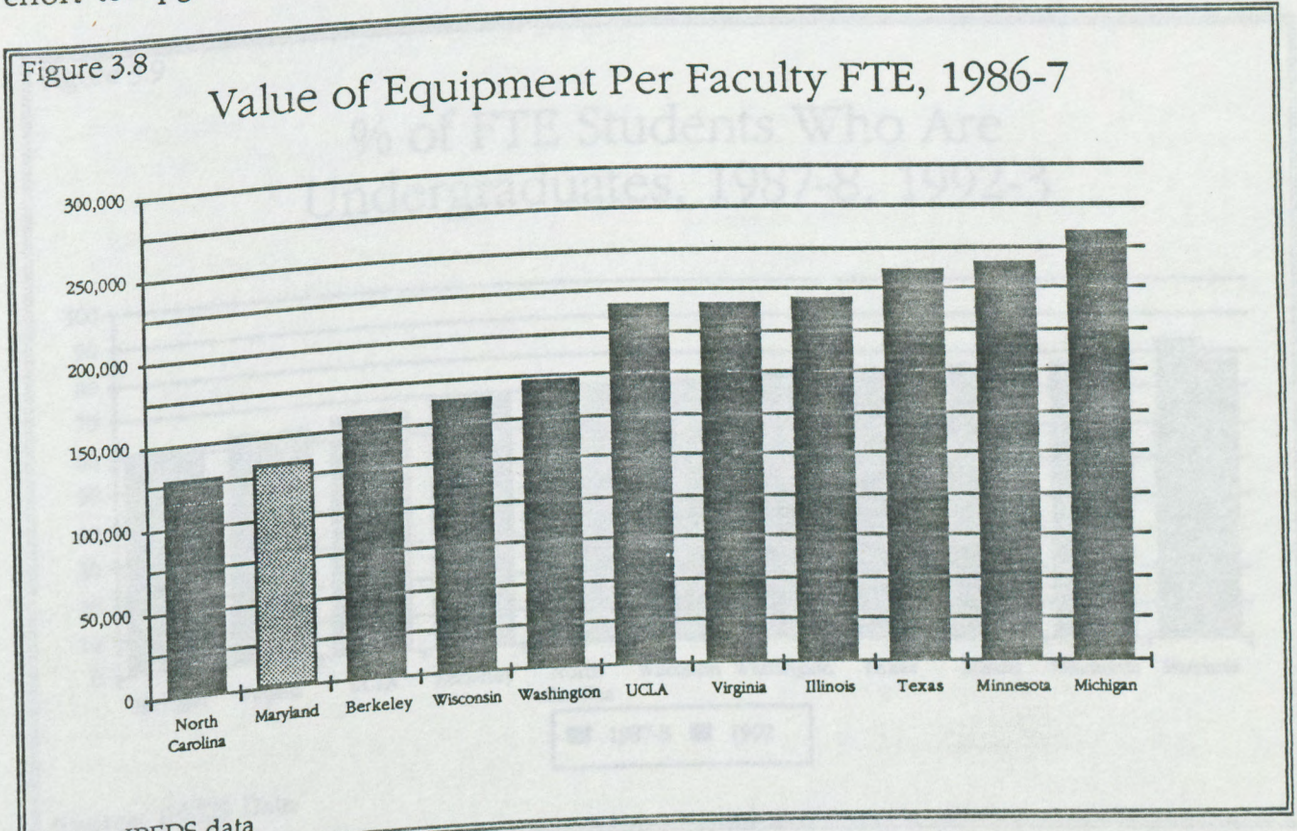
Note: more precise estimates of equipment and laboratory requirements will be prepared during the submission of individual college plans, particularly those of CMPS, Engineering, BSOS and Agriculture and Life Sciences.

Graduate Education

The campus is in the process of a significant enhancement of its undergraduate programs. At the same time, as the Middle States External Review Committee noted in 1986, College Park needs to expand its graduate programs if it is to attain the status of a major research university.

As figure 3.9 suggests, College Park has the smallest proportion of graduate students of any of its peer institutions. Keeping other institutions' enrollments constant and simultaneously reducing College Park's undergraduate enrollments according to plan and increasing graduate enrollments by 20% (an optimistic estimate)

Figure 3.8



Source: IPEDS data

would increase the graduate: undergraduate ratio only slightly. It is unlikely that College Park's graduate enrollments will rise this much over the next several years. Even were this possible, College Park's graduate enrollments as a percentage of all enrollments would still be the smallest of all peer institutions.

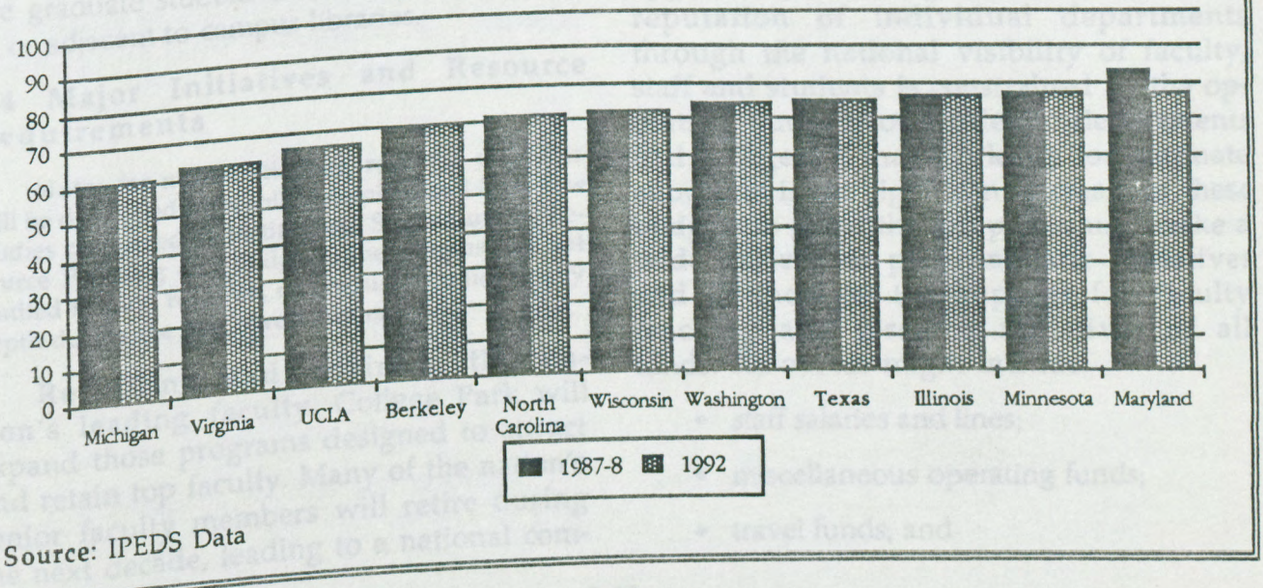
In order to attract and retain a larger share of the nation's best graduate students, the campus should consider undertaking four initiatives.

Improve support for graduate students. The campus must increase the number of fellowship, teaching assistant, and research assistant opportunities for graduate students. At a minimum, the campus must more than triple its existing pool of fellowships to a number in excess of 300, cover all tuition costs, and ensure that graduate student compensation (for TAships, RAships and similar positions) supports the high cost of living in the Washington, D.C. area, on an after-tax basis.

Enhance research facilities. The campus must improve the research facilities at College Park in general, including acquiring more workstations, improving library collections and upgrading laboratories and research space and facilities to become more competitive. Several colleges have reported that graduate student recruiting depends to a great degree, as does faculty recruiting, on the quality of research facilities available for Masters and Ph.D. research projects.

Improve recruiting efforts. At present, the campus has no systematic recruitment program to attract graduate students, although individual departments and colleges have undertaken their own initiatives. Among the initiatives that the campus might consider are: sponsored travel by faculty members to leading undergraduate institutions; a recruiting day at College Park, during

Figure 3.9



Source: IPEDS Data

which students would be brought to the campus at campus expense for day-long tours and seminars; an increase in campus funds available for printing and mailing brochures about graduate offerings; additional conference travel opportunities for faculty who are willing to make layovers at peer institutions to address graduate students; and increased use of Institutional Advancement to publicize, and raise funds to support students in targeted graduate programs.

Enhance the quality of life for graduate students. A stimulating intellectual environment and strong, shared sense of community are important aspects of graduate student recruitment and retention. Initiatives which the campus might consider include: improving graduate student community and faculty/graduate student interaction through the development of a faculty/staff club certain of whose facilities would be open to graduate students; campus funding for distinguished lecture series; campus funding for collegiate or departmental faculty/graduate student roundtables, informal research seminars and social events; increased campus attention to developing affordable housing alternatives for graduate students; improved funding of departmental and collegiate placement offices; and creation of lounges and coffee shops for the graduate student community, particularly in or adjacent to campus libraries.

3.4 Major Initiatives and Resource Requirements

Note: for most initiatives, resource estimates will be developed from collegiate plans and from new studies performed by Institutional Studies and by Resource Planning and Budgets. The campus has not studied faculty, research, or graduate studies in any depth during the past several years.

Recruiting and retaining the nation's leading faculty. College Park will expand those programs designed to attract and retain top faculty. Many of the nation's senior faculty members will retire during the next decade, leading to a national competition to recruit top scholars. Unless its programs are highly competitive, College Park will be unable to attract and retain its existing leaders. The campus must begin to invest in appropriate compensation and research support programs now, if it is to compete in the mid'90's. Resources might include:

- enhanced faculty salaries and benefits, including improved retirement programs and an early retirement plan;
- an enhanced recruitment and retention fund; and
- a faculty research start-up fund for equipping laboratories and hiring research assistants during the first several years of a new appointment; and
- University–funded spending accounts or faculty spending accounts (in the latter case, similar to non-taxed child care and medical care spending accounts) to help faculty defray personal research expenses such as travel, books, and equipment.

Providing a Level of Departmental Operating Support Capable of Sustaining Quality. The ability to undertake new academic initiatives and the opportunity of College Park to enhance the reputation of individual departments through the national visibility of faculty, staff and students is constrained by the operating budgets of academic departments and colleges. A major priority for graduate education is the significant increase of these budgets to allow the campus to undertake a wide variety of programmatic initiatives and to increase the support for faculty teaching and research initiatives of all kinds. Resources might include:

- staff salaries and lines;
- miscellaneous operating funds;
- travel funds; and

- miscellaneous departmental research support funds.

Providing Facilities Adequate for State of the Art Research. The ability to conduct graduate training and support faculty research across the sciences and fields of engineering is dependent upon the quality of research facilities and laboratories. A major priority of enhancement efforts will be the significant upgrade of laboratories and laboratory equipment throughout the campus. Resources might include:

- research support staff, including secretarial and clerical staff, Ph.D.-level professional and technical staff, and maintenance staff;
- improved space;
- renovation funds; and
- laboratories and laboratory and computing equipment.

Attracting the nation's best graduate students. College Park must expand its recruitment and retention efforts nationally, throughout its leading graduate degree programs. Specific enhancement emphasis should include expanding graduate fellowship opportunities, improving the quality of graduate student life, and increasing the ratio of full-time to part-time graduate students. Resources might include:

- enhanced fellowship support, expanding the current pool of less than 100 fellowships to a pool in excess of 300: approximately $2 million;
- funds for improved graduate student recruiting using such tools as faculty travel, sponsored on-site visits, and improved publications and brochures;
- a program to improve graduate student community and interaction, including social facilities for graduate students, new distinguished lecture series, and departmental and collegiate colloquia; enhanced graduate placement services; and
- provisions of adequate housing for full– time graduate students.

Chapter 4: Service

Knowledge is the basis of most public policy, economic growth, and social reform; research is the engine that drives progress.

–The Post-Land-Grant University, 1981, p. 285

4.1 Introduction

A great flagship research campus is one of a state's primary sources of intellectual capital, a spur to economic growth and cultural development.

When the *Post Land Grant University* report was published in 1981, it outlined service to the state and a return to a closer interplay with the schools as commitments the University should place among its highest public service priorities in order to serve the people of Maryland well.

Over the past decade, College Park has made major progress in fulfilling those commitments. As the 1980's draw to a close, the campus can take pride in the extent to which it is fulfilling its responsibilities to act as an "engineer of social and economic progress" as proposed in the report.

As recently as ten years ago, the campus funded no technology outreach programs. Today, numerous programs act as a catalyst to stimulate economic growth of the State. Ten years ago, the campus did not house an extensive partnership program with the public schools. Today, a commission for school/university cooperation is expanding links to the State's public school systems and state agencies. Ten years ago, the campus supported a limited number of cultural programs that traveled out into communities. Today, Maryland's citizens have many opportunities to appreciate the arts through performances, exhibits, and lectures presented by College Park's arts and humanities faculty.

Ten years ago, the campus made little effort to transfer its technology to the private sector. Today, Maryland businesses are served by a full–time Office of Technology Liaison to link faculty research results to private industry needs. Exemplary programs have been put in place to serve the needs of the people of Maryland despite inadequate financial support. One might ask what progress might the campus make given the promise of increased support over the next five years?

As the state's flagship campus, College Park should assume the undisputed position as the state's intellectual capital. It should become the state's brain trust, the institution to which the state turns instinctively as its "intellectual incubator."

College Park should be called upon routinely by state agencies and the private sector to put its knowledge to use in service to the state's economy; it should become Maryland's cultural hub and be relied on increasingly as a powerful partner for education at all levels.

As part of its efforts to become the "intellectual incubator" for the state, the campus has set four public service goals to ac-

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complish over the next five years. College Park is providing public service benefits in the millions of dollars to citizens, industry and the State of Maryland itself for a minimal cost. Among the types of support it offers are the following:

- **Educational Benefits:** Classes are offered at many sites throughout the state; College Park serves as the principal educator of Maryland's primary and secondary school teachers.
- **Economic Benefits:** Incubator facilities, research programs and industrial partnerships enhance the economic potential and technological capabilities of the public and private sector.
- **Cultural Benefits:** Citizens enjoy a multitude of cultural opportunities offered at many locations and through a variety of media.

4.2 Goals and Objectives

- **Become Maryland's Intellectual Resource by Strengthening Economic Development and Public Service:** College Park plans to add greater strategic focus to its economic development and service programs for the State and for Maryland businesses. To accomplish this, many existing economic development initiatives and public service programs will be brought under the umbrella of a single campus organization. This organization will better focus campus resources on the needs of public and private organizations within the State.
- **Expanding Public Communication and Development Programs:** College Park will enhance its development and public relations, and alumni activities to inform Marylanders about the excellence achieved by the campus and about the intellectual assets which the campus makes available to the State. Strengthened development and alumni activities will also increase the resource base of the campus by attracting increased contributions and endowment income.
- **Enhancing the Cultural Resources of the College Park Campus:** College Park will seek to become one of the primary cultural resources of the region through the establishment of a major Performing Arts Center, for use by the campus' Arts and Humanities programs and for campus, local, and state cultural events of all kinds. The Center will give the many cultural programs and cultural outreach activities of the campus an integrated focus and a strong identity.
- **Serving as the State's Public Education 'Master' Campus:** A major goal over the next five years will be to expand existing cooperative partnerships with public schools and state agencies and create dynamic new programs that will fulfill needs of the public school population.

4.3 Current Status

Becoming Maryland's Intellectual Resource–Strengthening Economic Development and Public Service.

Through the centers established within the Engineering Research Center (ERC), the campus has already made significant strides toward helping the state develop existing industry, stimulating the creation of new industries, and encouraging them to locate in the state.

Using the ERC as a model, the campus will establish a broad-based interdisciplinary center that will bring its various economic development and other technology service programs under the umbrella of one campus office. This Partnership/

Outreach Office will assure that the campus coordinates more effectively the current and future University, state and local government and industry interests and ensures the most efficient use of campus and external resources.

A March 1987 report, *An Overview of University of Maryland, College Park Economic Development Proposal*, describes a possible model for this office and suggests specific technological and economic development projects that this office can facilitate.

Expanding Partnerships with the Public Schools.

One of the most significant public service programs initiated over the past several years at UMCP has been the project to implement recommendations of the Chancellor's Task Force on School/University Cooperation. Under the aegis of this group, many new UMCP partnerships and networks with public schools have been formed between the campus and the State's public school sector. As a result, increased cross-fertilization of ideas has occurred between the campus and public school systems as well as between campus and state educational agencies.

Sharing the Cultural Resources of the College Park Campus.

College Park possesses a remarkable strength of cultural talent that should be as shared as a service to the community. In the past, cultural events on campus have centered around Tawes Theater and Recital Hall, the Art Gallery, Architecture Auditorium and Gallery, and dance studios.

While these structures have served the campus to the best of their capabilities, a need for a major campus Performing Arts Center has been evident for many years. Within a few years, the campus' ability to become a true cultural center for the State will become a reality. The decision to construct a new performing arts building is forthcoming. When this center is completed, concerts, lectures, art exhibits and other cultural programs will be able to be presented to larger campus audiences and will attract numerous visitors to the campus. We will want to plan programs that welcome them and a visitors' center, as well, that welcomes them.

At the same time, performing arts programs should be dispatched to schools and communities around the state, and invitations to enjoy, learn and participate in the arts through these programs should be extended to all citizens as part of UMCP's role as a cultural center for the state.

Expanding Public Communication and Development Programs.

If the campus is to attain a position among the great universities of the nation, it must generate considerably more loyalty and commitment from its most important constituencies than it attracts today. As awareness and understanding of College Park's excellence in research, teaching and public service is increased, greater commitment to the institution is built among such important groups as alumni, prospective donors, parents and students, legislators and members of the State's business and corporate community.

This broad base of support and commitment is critical to the success of the $100 million fund-raising campaign upon which the campus has just embarked. To succeed in such a major development effort, we must begin immediately to fashion programs that instill loyalty and pride among the internal campus community and communicate this pride to all of our important constituencies. A major goal for the campus during the next five years will be to support the Campaign for College Park by enhancing our development, alumni and

public communication programs.

We have already laid the foundations upon which these outreach programs are built. Now we must provide the funding sufficient to enable them to grow and flourish and serve the economic, cultural and social interests of the State as it plans for a new century.

Primary Needs

According to the *Middle States Self-Study*, one hundred seventeen new public service projects were initiated at College Park between 1975 and 1985. Among these were programs that started on a shoestring and now have become worthy of multi-million dollar support because they are vital links in helping to lift the State's economy to a new level of technological competency. Some examples of such programs are:

The Engineering Research Center. Through the Engineering Research Center, created just five years ago with an initial funding of $600,000, the campus is increasing interactions between the University and the State's business and industrial community and is helping to step up the pace of the transfer of research and advanced technology from the University to the marketplace. Its four major programs provide benefits to the high tech industries in the State in a variety of ways.

The Technology Extension Service (TES) runs five regional offices around the state, each of which helps small businesses modernize and solve specific technical problems.

The Technology Advancement Program (TAP) supplies opportunities for small businesses to have a lab, office and business support facility. These services reduce start-up costs and enable new businesses to concentrate on developing and marketing their products more efficiently. Over fifty businesses are now benefiting from this service of the University to the State. Digene, Inc., for example, one of the companies assisted by the Technology Assistance Program, has just received a multi-million dollar contract from Mitsubishi. The company has moved off-campus and now employs more than forty people.

The Technology Initiatives Program (TIP) promotes collaborative research in such areas as biotechnology, electronics, composite materials, computer-aided design, and

Maryland Industrial Partnerships (MIPS), created just a year ago and now with an asking budget of $600,000 in FY 90, is stimulating technical innovation and enterprise by providing State matching fund grants for University-industry research partnerships.

The Systems Research Center. Funded in 1985 with a $16 million five-year grant from the National Science Foundation, the SRC, in collaboration with Harvard University, is one of just six original engineering research centers of its kind. It has just received another $21.3 million to continue to bring teams of university researchers and industry scientists together to find new solutions to problems surrounding integrated design of advanced and complex automation and engineering systems that will help American industry maintain its competitive edge in world markets.

School/University Cooperative Programs. Involving a broad cross-section of campus academic units in cooperative initiatives, the School/University Cooperative Programs has expanded campus working relationships with state education agencies and created partnership projects with county school systems, magnet schools and high schools in Prince George's county.

Supporting Development, Alumni and Communication Programs.

According to the Research Report of the Council for Aid to Education (CFAE), total giving to colleges and universities in the U.S. reached a record $8.5 billion in 1986-87. This was an increase of $1.1 billion, or 14.9% , over the previous year. Corporate giving is rising, alumni contributions are soaring, and matching gifts hit a high mark of $129 million.

At College Park, as well, the number of donors and cash contributions showed a similar increase over the latest three fiscal years for which figures are available (Figure 4.1)

Endowed Professorships. At present, there are two endowed chairs on campus, the A. James Clark Chair in Construction Engineering and Management and the Martin Marietta Chair in Systems Engineering. The Campaign for College Park will work to endow 20 chairs.

Endowment. As of fall, 1987, the total endowment for College Park was $34,936,206 with $25,391,957 in a common trust and $9,544,249 in the foundation. There are 34 endowed funds on the College Park campus, each having a market value exceeding $100,000. They range from the Minta Martin Research Foundation Fund that has a market value of approximately $14 million to the Gudelsky Research Fund with a market value over $100,000.

Staffing. Currently, the size of the staff in Institutional Advancement does not support plans for expanding communication with the internal and external constituencies of the College Park campus. At present, the total UMCP institutional advancement office consists of 28.5 professional and support staff. Regular, high-quality communication must be developed with alumni, parents, corporations, foundations, legislators, faculty, staff, students, and the general public in order to build lasting rapport with these constituencies. It is

Table 4.1

Donors and Donations, 1983 - 1988

Year	Cash Donations	Increase in Donors
1983	$3,097,417	
1984	3,087,101	0
1985	5,124,493	66%
1986	6,599,619	29%
1987	9,429,973	46%
1988	14,045,264	49%

Source: Institutional Advancement, UMCP

from this communication base that substantial private support and an image of excellence are built.

In order to provide more critically needed support for development activities of all kinds, College Park will expand the number of development positions at the campus-level and within individual colleges and schools. This is consistent with the need to provide support for the $100 million fund-raising campaign now underway As part of this effort, the campus will upgrade its efforts to remedy historic deficiencies in the areas of communications and publication services.

In comparison, a study of peer university capital campaigns showed that Ohio State has 65 full-time fundraisers, Minnesota has 60, Wisconsin 50, Indiana 70 and Penn State 70. Their overall institutional advancement staffs, including full-time alumni staff, were also many times that of College Park's, with Ohio at 50+, Minnesota at 80+, Wisconsin at 60+, Indiana at 40+ and Penn State at 70. This compares with College Park's 28.5.

The underfunding of development activities, in comparison to peer institutions, is as dramatic if one examines the alumni component of institutional advancement organizations. As Figure 4.1 indicates, College Park has less than one-third the alumni staff of its lowest ranked peer, and one-seventh of its top ranked peer. As a result, the typical College Park alumni officer must manage relations with a much larger constituency than peer institutions (Figure 4.2). Where top-ranked peers have one alumni staff member for every 5,000 to 13,000 alumni, at College Park, each alumni staff must manage relations with, on average, 36,000 alumni.

Alumni activities will require a significant budget increase, if the campus is to obtain the kinds of alumni support enjoyed by peers. The alumni budget is less than 25% of our lowest ranked peer institution, and less than 10% of the highest ranked peer (ranked in terms of alumni development budgets).

Building Relationships. As the campaign gets underway this fall, new alumni Centers of Influence programs are being created within the State of Maryland to join those already in existence in major cities around the nation. In addition, a number of new public relations initiatives have gotten underway, more special events are planned, and publications support for student recruitment efforts has expanded.

In the FY 1990 budget, $540,000 is requested for expansion of development and public communication activities. This is required to augment current programs and to expand the number of positions for senior development, institutional advancement officers and gift processors.

Other Public Outreach Services. A variety of other public outreach programs serve citizens, state agencies, and industry. Examples include:

- The Maryland Fire and Rescue Institute trains over 10,000 volunteers and professionals to protect and promote fire safety for citizens of the State.
- The Bureau of Labor Relations help counties and corporations, labor and management in a variety of tasks.
- An array of agricultural outreach services, such as a computer information service for farmers, agricultural exhibits at malls and county fairs, 4-H clubs, lectures and advice from extension agents, serve agricultural interests in the state.
- Outreach programs such as the Maryland Dance Theatre, Improvisations Unlimited, the UM Chorus, and Physics

is Phun bring intellectual enrichment to citizens of the State.

- Upward Bound programs, speech and hearing clinics, summer camps and programs for the gifted or elderly, and family mediation services all perform valuable service functions to various segments of the State's population.

It is difficult to calculate the value of public service outreach efforts, but according to the latest figures available in the Finance Report, Part B, Current Funds Expenditures and Transfers for FY '87, UMCP expenditures for public service totaled $22.7 million.

4.3 Policy Requirements for Implementing Campus-wide Public Service Outreach Programs

Faculty and staff throughout the College Park campus believe that public service programs are of vital importance to the State and to the campus, and as the record of existing service activities suggests, the range and variety of existing programs is impressive, and indicates the clear commitment of the campus to working for the betterment of all of the State's citizens. At the same time, we believe that we can do even more.

A Coherent Service Policy. *The Middle States Self-Study* calls public service "the current step-child of the research-teaching-service triad." It cites a faculty survey indicating that 46% of respondents thought that service activities should be increased.

In identifying obstacles to increasing service activities, the report concluded that the campus does not provide adequate rewards and visible recognition for those faculty and those academic units contributing to the public service mission of the university: "If ...service is an integral feature of

Figure 4.1

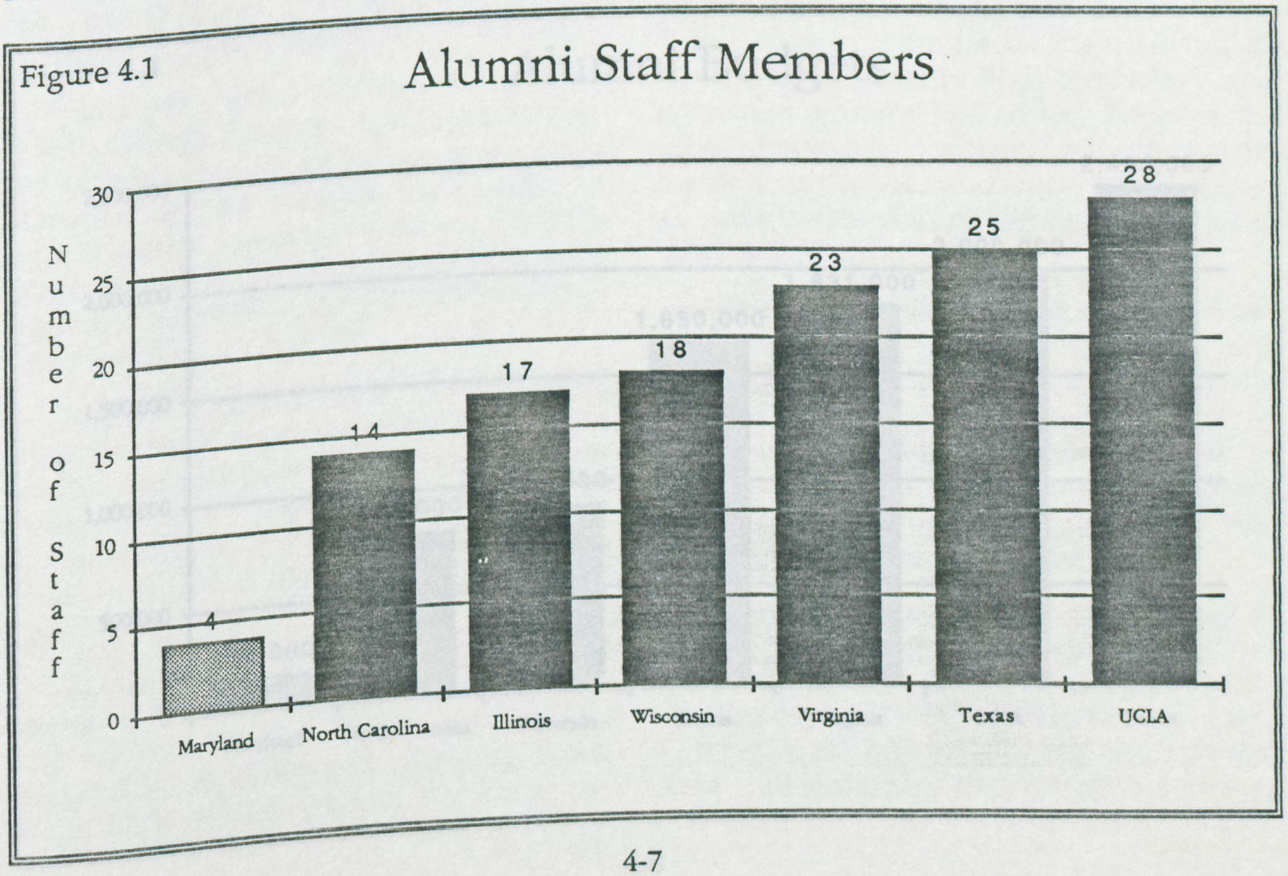


Figure 4.2

Alumni Per Staff Member

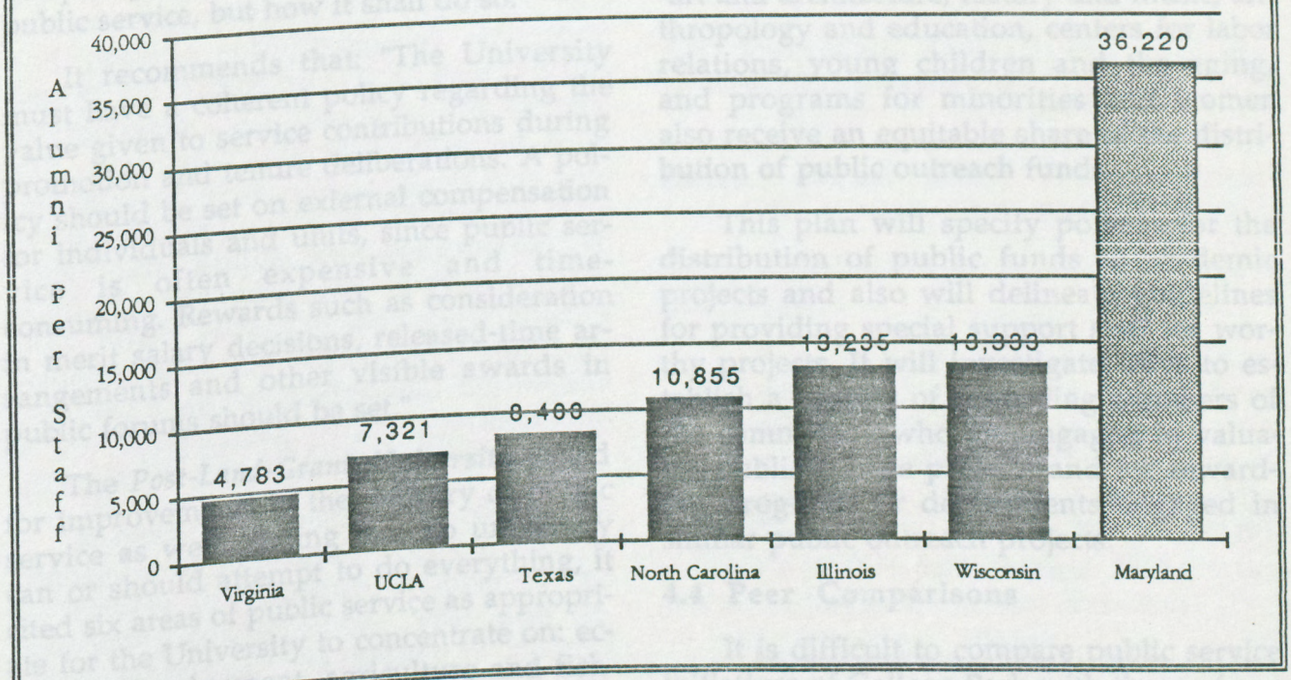
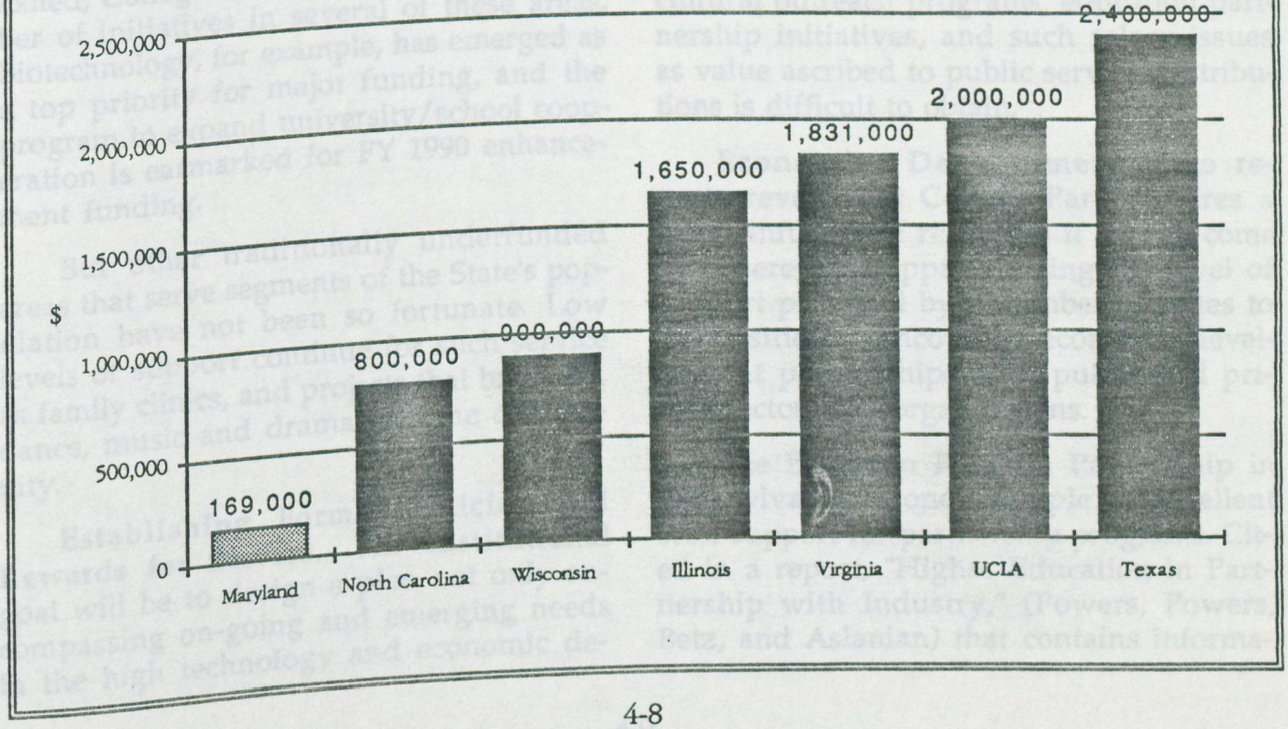


Figure 4.3

Alumni Budgets



many teaching and research operations, then the question becomes not whether the campus performs a significant degree of public service, but how it shall do so."

It recommends that: "The University must have a coherent policy regarding the value given to service contributions during promotion and tenure deliberations. A policy should be set on external compensation for individuals and units, since public service is often expensive and time-consuming. Rewards such as consideration in merit salary decisions, released-time arrangements and other visible awards in public forums should be set."

The *Post-Land-Grant University* called for improvements in the delivery of public service as well. Stating that no university can or should attempt to do everything, it cited six areas of public service as appropriate for the University to concentrate on: economic development, agriculture and fishing, health care, natural and physical environment, government, and education.

Since 1981 when that report was published, College Park has developed a number of initiatives in several of these areas. Biotechnology, for example, has emerged as a top priority for major funding, and the program to expand university/school cooperation is earmarked for FY 1990 enhancement funding.

But other traditionally underfunded areas that serve segments of the State's population have not been so fortunate. Low levels of support continue for such service as family clinics, and projects that bring art, dance, music and drama into the community.

Establishing Formal Policies and Rewards for Service. An institutional goal will be to design a plan not only encompassing on-going and emerging needs in the high technology and economic development areas that serve the state and industry, but one that provides enhanced funding to ensure that academic have-nots--art and architecture, history and music, anthropology and education, centers for labor relations, young children and the aging, and programs for minorities and women also receive an equitable share of the distribution of public outreach funds.

This plan will specify policies for the distribution of public funds to academic projects and also will delineate guidelines for providing special support staff for worthy projects. It will investigate ways to establish a process of rewarding members of the community who are engaged in valuable public service projects and for rewarding programs or departments engaged in similar public outreach projects.

4.4 Peer Comparisons

It is difficult to compare public service initiatives of College Park with those of our peer institutions. Where data are available, it is apt to concentrate on comparisons of funding for primarily high technology and economic growth initiatives. Support for cultural outreach programs, education partnership initiatives, and such salary issues as value ascribed to public service contributions is difficult to obtain.

Economic Development. Two reports reveal that College Park requires a major infusion of resources if it is to come anywhere near approximating the level of support provided by a number of states to universities to encourage economic development partnerships with public and private sector state organizations.

The Benjamin Franklin Partnership in Pennsylvania is one example of excellent state support for partnership programs. Cited in a report, "Higher Education in Partnership with Industry," (Powers, Powers, Betz, and Aslanian) that contains informa-

tion on successful state supported partnerships, the Partnership is a major challenge-grant program established to conduct cooperative research and development projects and provide entrepreneurial assistance. During the 1985-86 fiscal year, Pennsylvania appropriated $21.3 million for the centers, and consortia members contributed $80.9 million. A total of $102.2 million was used to support 379 projects in 1985-86. In New Jersey, $57 million was appropriated to build four advanced technology centers. In New York a variety of university-industry ventures have received support, and since 1983, the state has contributed $25 million to the centers along with $50 million contributions in private funds.

A recent Maryland State Board for Higher Education report, "State Initiatives to Promote Technological Innovation and Economic Growth" (June, 1986), also describes sources of state funding to promote high tech and economic growth. This publication indicates that Maryland initiatives include: the University of Maryland Biotechnology Institute ($3.8 million in state funds), ERC ($1.8 million), Center for Advanced Computer Studies at UMCP ($1.7 million), Systems Research Center ($7 million state funding, $3 million private industry, and $16 million, federal), and teachers in areas of critical shortage ($70,000). Clearly, College Park has begun to develop high-quality partnerships with the State, particularly in areas relating to certain key technologies; at the same time, many opportunities to develop partnerships remain to be explored in many other cultural and technological arenas.

As California, Massachusetts and New Jersey have discovered, the best economic and cultural development partner a state can have is a great public university having very close relations to the state's public and private sectors. College Park seeks to use its own enhancement to enhance the lives of the citizens of Maryland, and seeks, in so doing, to strengthen its public service, cultural events and outreach activities of all kinds.

4.5 Proposed Initiatives and Resource Requirements

Support Programs that Help Expand Economic Development and Attract High Tech Industries.

Specifically, in the near-term the campus has proposed to:

- Support Engineering Research Center initiatives: Maryland Industrial Partnerships (MIPS), Technological Advancement Program (TAP), the Technological Extension Service (TES), and the Technology Initiatives Program (TIP). FY 1990 resource request: $600,000 (including public school initiatives)

- Fund units and centers such as Business and Public Policy, Bureau of Governmental Research, Business and Economic Research, etc. that build partnerships with industry and serve the state and local government through conducting research, running workshops and conferences, producing publications, etc. on economic, high tech issues.

- Fund the Experiential Learning Program so that more interns work in businesses and industry and work in Maryland jobs after graduating. FY 1990 resource request to build excellence in undergraduate education: $950,000.

- Increase funding for programs such as Maryland Fire and Rescue Institution , a training facility that enhances local community and fire protection in engineering service. FY '90 Resource Request: $180,000.

Clearly, College Park has identified part-

nerships and targets of strategic value to the State and its citizens. But it can and should do more. Moving beyond areas of high technology, the campus has proposed to expand its activities as a model campus and expand its communications and development activities.

Resource requirements beyond FY'90: to be determined.

Serve as the State's 'Master' Campus. As the flagship campus of the State's system, College Park has a special responsibility to serve as a model of public education for educators across the State--an educational Master Campus. As part of its service initiative, the campus will continue to build its partnerships and its relations with primary and secondary schools throughout the State, will strengthen its teacher training and in-service educational programs, and will encourage the development of cooperative educational programs with other campuses of the University of Maryland System.

The annual report, *School University Cooperative Programs–A Progress Report* (Sept. 2, 1988), suggests possible new initiatives, including providing cooperative, research and other support for and interaction with the Maryland State Department of Education (MDSE), expanding joint research projects with county school systems, establishing a University Lab School in conjunction with Prince George's County Schools, and expanding magnet school and college prep cooperative programs. Other initiatives might include:

- Create a University Lab school in conjunction with Prince George's County.
- Extend collaborative research and other cooperative projects with public schools statewide, including projects with magnet schools.
- Create a Science Outreach Center at College Park for focus on efforts to spearhead improvements in public school science and mathematics instruction, particularly for minorities and young women.
- Create a Junior Scientists, Engineers and Educators Project on a statewide basis to work in partnership with the new Science Outreach Center.
- Phase in a new Language Arts Outreach Center and a Social Science Outreach Center with the Science Center as a model.
- Expand facilitator, brokering role and add support staff to extend partnership programs and encourage more colleges to create partnership projects.

Minimum funding requirements: $300,000--$400,000 annually for five years.

Expand Development and Public Communication Efforts.

- Create a new alumni magazine to improve communication with alumni.
- Extend alumni Centers of Influence program to include centers in the State of Maryland.
- Expand staff , of development, public relations, publications and special events offices to support the fundraising Campaign for College Park. (See attachment for comparative data on alumni offices).
- Create programming for the new College Park cable TV channel in Prince George County and campus video distribution system in order to reach internal and external target constituencies.
- Build a new visitors' center to welcome potential students, visitors and others to campus.
- Create communications programs and

publications that inform business, industry, state and local government of the services College Park provides to citizens and institutions in Maryland.

- Send cultural programs into communities and bring special audiences and individuals to campus for performances in a new Performing Arts Center to educate, inform, and facilitate friendships and commitment to the university.

Annual resource requirements: 1991: $615,000 1992: $676,000 ,1993: $744,000, 1994: $818,000.

Improve the Reward Structure for Faculty, Staff and Academic Units that Participate in Public Service. Recognize the costs involved and develop a policy and program to fund worthwhile public service activities and reward service contributions in merit pay and promotion and tenure.

Resource Requirements: to be determined.

Chapter 5: Physical Facilities

> The people of the State of Maryland deserve a world class institution. This fact has been recognized by both the Governor and the Legislature. With the passage of Senate Bill 459, we are in a position to move toward this goal. Its attainment, however, is dependent upon progress being made in both the operating and facilities areas.
>
> Dr. William E. Kirwan
>
> *– Introductory Remarks to the UMCP FY 1990 Capital Budget Hearings at the Department of State Planning, July 1988*

5.1 Goals and Objectives.

The quality and condition of its buildings and facilities are the most prominent and visible signs of the health of a campus. Facilities which have not been well–maintained or which offer inadequate space for teaching and research quickly convey the sense of a campus in disrepair.

The quality of physical facilities can make a significant difference to the quality of instruction and research. Facilities which have not been modernized cannot accommodate those new instructional and research technologies so critical to work in many disciplines. And a lack of appropriate space within which to work, to meet and to collaborate will lead to a deterioration in the very sense of academic community itself, for if space cannot be found to facilitate the sharing of ideas and the process of intellectual engagement, then a campus will truly have lost much that is central to its mission and identity.

In order to be responsible its own sense of mission and purpose and to fulfill the mandate of Senate Bill 459–which calls upon the campus to provide facilities consistent with a world class institution–College Park should:

- Provide the types of facilities that meet the space and technological requirements for instruction and research in the 1990's and the twenty-first century.
- Establish and fund an ongoing program of facilities renewal and deferred maintenance that will make effective use of existing space and prevent costly maintenance problems in the future.
- Develop a Facilities Master Plan that can guide the land use development of the campus and which will integrate the plans for new facilities with plans for facilities renewal and deferred maintenance. This plan will also be linked to the campus' strategic enhancement plan.
- Provide recreational and athletic / instructional facilities that meet the campus' strong commitment to intercollegiate athletics and student life.

- Provide facilities that foster a sense of community and facilitate the interaction and exchange of ideas among students, faculty, and staff.
- Provide facilities, such as a performing arts center, that will permit the rich cultural and intellectual resources of the College Park campus to be more readily available and accessible to the people of the State of Maryland.

College Park has developed an ambitious plan, described below, for modernizing, renewing and replacing its facilities. What does this plan mean to the people of the State of Maryland? It means two things: an investment in the future, and improved access and use of the College Park campus.

An investment in the College Park campus is an investment in the future, and, more importantly it is an investment by the people in themselves. A world class university provides instructional programs of the highest quality. Its research efforts will attract new industry and create new jobs for the citizens of the State. The State as a whole will benefit from such an investment in the future. By providing centers such as the proposed Performing Arts Facility, the cultural and intellectual life of the community and the State will be enriched. Just as the Kennedy Center and Wolf Trap have brought prominence to the Washington, D.C. area, so, too, the existence of a instructional and performing arts and public lecture hall will will greatly enhance the performing arts programs at College Park and throughout the Baltimore-Washington corridor.

Governor William Donald Schaefer in his 1988 State of the State message issued a challenge to Maryland's colleges and universities "to be the best in the world." Such a challenge is consistent with College Park's goals and with the mandate of the Governor and Legislature for "the College Park campus to achieve a stature equivalent to institutions in the upper echelon of its peer group." A world class institution, however, requires not only dedicated faculty, staff, and students, but it also requires a level of operating support and facilities commensurate with its mission and its leadership.

5.2 Current Status

Age and Condition of Our Buildings. Between the 1940's and the early 1970's, the campus witnessed a building boom. However, since the mid 1970's significant new facilities have not been constructed, although major renovations of dormitories and some instructional facilities have taken place.

Today, the salient characteristics of College Park's physical plant include:

- The average age of the classroom-office buildings is 28 years, an average generously derived using renovation dates rather than initial construction dates.
- The national norm for a useful building life is 50 years; that is fifty years should pass before a major renovation or replacement is required. Given the average age of these buildings is 28 years, this means that 56% of the useful life of all campus non-residential buildings has been depleted.
- Through 1984, the campus' annual building inventory indicated that only 36% of all campus non-residential buildings were in satisfactory condition. That is, they were thought to require not more than 25% of the estimated replacement cost (in 1984 dollars) of the buildings in order to upgrade them to good condition, and were therefore suitable for continued use with normal

maintenance and no room changes, alterations or modernization. Figure 1 highlights this situation.

In reviewing Figure 5.1 it is important to note that of all office/classroom buildings, 61% were thought to need one of the following:

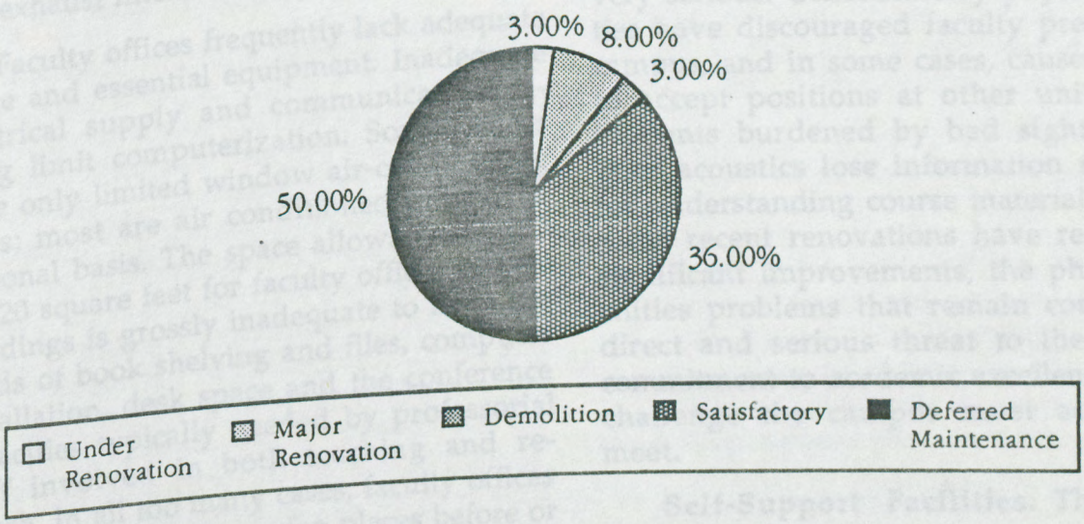
- major modernization (with the cost more than 25% but less than 50% of the estimated price of the building).
- major renovation (where renovation costs exceeds 50% of the current building cost). In recent years, capital appropriations and deferred maintenance funds have only been able to meet the most urgent deferred maintenance needs, such as roof replacement and heating and air conditioning systems.

Inferior Space. Some facilities, while they might have been adequate for the purpose for which they were constructed, are no longer adequate for their present functions. Changes in programs, in technology, or in expectations, frequently require renovations that cannot be made in an existing facility.

Thirty years ago, an adequate classroom required only decent seats, sight-lines, and acoustics in a room that could be adequately heated in winter. Today expectations and technologies have created more stringent demands. Classrooms must be air conditioned as well as heated. But installing air conditioning in old buildings requires duct work, which in turn requires lowering the ceilings, which creates sources of noise that seriously diminish the value of the lecture hall. The advent of video and computers has created additional demands. Particularly in a research-oriented university, the faculty must bring the latest methods into the classroom. This means that lecture halls

Figure 5.1:

Gross Square Feet in Non-Residential Buildings, By Condition, 1985



Source: *Critical Capital Needs*, Fall 1985, The University of Maryland

must be equipped to project video and computer output. Low ceilings and insufficient adjacent space for projection facilities often make this impossible. Expensive instructional equipment also needs to be maintained, serviced, and secured against theft and vandalism. Isolated, unattended lecture halls are therefore no longer satisfactory.

Examples of lecture halls that cannot be brought up to modern standards without considerably diminishing their capacities are those in the Armory and in Shoemaker buildings. The campus has proposed a multi-media center containing several well-equipped lecture halls around a common service area. Such a facility would allow unredeemable lecture hall space to be converted to other uses in order to meet other pressing space needs.

Other examples of inferior space are the buildings that house the biological sciences. Here the nature of the technology required in the laboratories has changed dramatically, creating the need for a kind of space very different from that required when the facilities were first built. Special labs for handling viruses, for example, need containment equipment, special air conditioning, and exhaust filters.

Faculty offices frequently lack adequate space and essential equipment. Inadequate electrical supply and communication cabling limit computerization. Some offices have only limited window air-conditioning units; most are air conditioned only on a seasonal basis. The space allowance of 100 to 120 square feet for faculty offices in new buildings is grossly inadequate to meet the needs of book shelving and files, computer installation, desk space and the conference capacities typically needed by professorial staff involved in both teaching and research. In all too many cases, faculty offices are usable only as stopping places before or after class; sustained, successful utilization for research or for faculty-student interaction is often simply impossible.

It is not difficult to determine the academic costs–in terms of morale and lost opportunities–of these inadequacies. Space shortages have become so critical in some colleges, for example, that significant Engineering research proposals have been denied by the College due to lack of space. In two leading-edge fields, superconductivity and semiconductor physics, space shortages have proved to be a significant obstacle to hiring outstanding faculty. And CMPS has had to turn down many requests from distinguished scientists from other institutions who wanted to visit and conduct research at College Park, for lack of space. As the College has recently written, on numerous occasions when invitations could be extended to distinguished visitors, scientists were welcomed "with pleasure tinged with embarrassment," for these scholars often had to share cramped offices with graduate students." This is not a situation which should exist at a truly first–rate institution.

Faculty may occasionally find ways to overcome the dysfunctions, but the cumulative effect on morale, professional self-esteem and institutional loyalty has been very serious. Unsatisfactory physical facilities have discouraged faculty presence on campus, and in some cases, caused faculty to accept positions at other universities. Students burdened by bad sight-lines or poor acoustics lose information necessary for understanding course material. While some recent renovations have resulted in significant improvements, the physical facilities problems that remain constitute a direct and serious threat to the campus' commitment to academic excellence. It is a challenge the campus must attempt to meet.

Self-Support Facilities. The nonac-

ademic (generally non-State supported) facilities are also essential to the total life and excellence of the University. In general, the University has historically had an open hand in developing residential and recreational facilities--but it has also had to bear the costs. The general condition and appropriateness of these facilities vary. An enlightened dormitory-renovation program in progress since 1980, and a new University revenue bond authority leading to continued dorm renovations, additional recreation facilities, and other additions, suggest that more progress will be made in support facilities than in State-supported academic facilities.

In the case of the Stamp Student Union, however, the need for support for a major program of renovation and facilities renewal is critical. According to a recent study, *The Adele H. Stamp Union into the 21st Century*, the physical condition of the Union building was described as being "inconsistent with the stature of the campus or the role of the Union in campus life. It is in disrepair, it is overcrowded, and it lacks character, clarity, and amenity for use." In order to address these problems, the campus proposes to develop a program which combines elements of deferred maintenance and facilities renewal.

Recreational / Athletic / Instructional Facilities. In contrast with practices at universities of comparable size, many sports facilities here must be shared by varsity athletic programs, student sports and recreation, the instructional program, and the faculty/staff recreation program. For example, the campus has two swimming pools, Preinkert, constructed in 1951, and Cole, constructed in 1955. These aging and now aged facilities must serve twenty-one sections of swimming classes daily, the men's and women's varsity teams, the student sports program and the faculty/staff recreation programs. Neither facility contains adequate shower or locker facilities. Both are antiquated, limiting their instructional and research capacities, e.g., underwater filming to enhance teaching and coaching techniques. A new campus recreation facility is now only at the earliest planning stage.

In the spring of 1988, a campus Task Force was created to develop a Recreation/Athletic Facilities Master Plan. With assistance of consultants and the Office of Resource Planning and Budgets, the Task Force has determined that even under the relatively unsophisticated guidelines of the Department of State Planning, the campus has a shortfall in recreational and athletic space of 57% or 150,000 NASF and that the condition of this space is deplorable.

General Status of Buildings. As part of the campus' *Middle States Self-Study*, forty-seven campus State-supported buildings were reviewed. These buildings were all built at least twenty years ago. In function, they range from office/classroom to administration, from academic support to student services, from office/research to dormitories. In selecting the buildings to review an effort was made to select a representative sampling of campus buildings. Most were located along or near the mall.

The Middle States Review revealed that campus buildings, with few exceptions, shared these characteristics:

- Almost all no longer shelter the function they were designed to house.
- Continual modification of existing space, combined with an imprecise system of recordkeeping, has made the task of estimating new renovation project costs exceedingly risky. Experienced personnel are often surprised to find wiring, dangerous forms of insulation, even load-

bearing studs, in unexpected places.

- Almost all have extensive temperature-control problems. Most of the buildings were not designed for comprehensive air conditioning (less than 25 years ago, air conditioning was the exception, not the rule). Over the years, jerry-built temperature control systems--including window air conditioning units and space heaters--have resolved many problems but created others. All these systems have been worked very hard, and have been sustained by a system of complaints, band-aids, and miracles defying rational explanation.

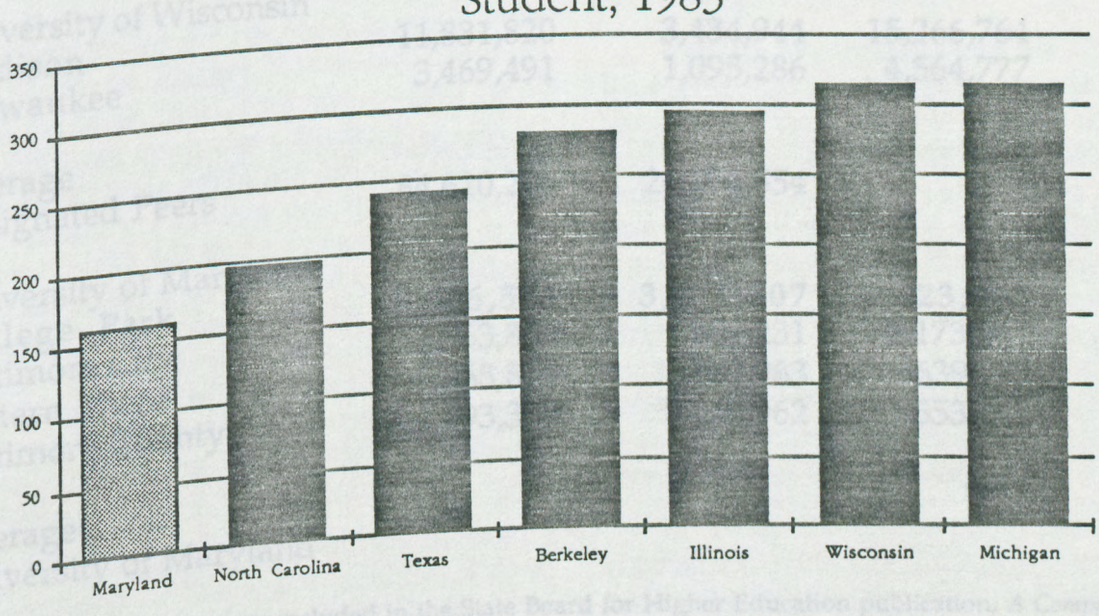
- Almost all the facilities suffer because of the inadequate quality of initial design and the quality of materials and workmanship. A major facilities renewal program has been initiated.

- Almost all classroom/office buildings suffer from overuse. It is rare for a building to be in session less than fourteen hours a day, six days a week. University College classes, special events, and special research projects intrude into the general maintenance scheme, making it very costly for many buildings to receive marginal maintenance. There is a severe shortage of lounges and common spaces.

- Almost all buildings have some major defect. Preinkert and Ritchie Coliseum are derelicts. The forty-year old "temporaries," (used army barracks) are still assigned to the Dance Department.

- Many of the buildings along the McKeldin Mall flood regularly, principally because of the 'lake' which the mall surrounds, and the lack of a

Figure 5.2:



Source: *A Comparison of the University of Maryland at College Park to its Peer Institutions* , The Maryland State Board of Higher Education, (p. 40

Table 5.1
Campus Facilities-Gross Square Feet
University of Maryland and Designated Peers (Square Feet Per FTE Student)

	Non-Auxiliary GSF	Auxiliary GSF	Total GSF	Non Aux. GSF/FTES
University of California	8,080,000	N/A	N/A	281
Berkeley	5,436,827	2,222,573	7,659,400	299
Davis				
University of Illinois	9,739,588	3,452,471	12,192,059	296
Urbana-Champaign	3,686,711	443,831	4,310,542	929
Medical Center	3,300,878	0	3,300,878	315
Chicago Circle				
University of Michigan	10,297,834	9,332,799	19,630,633	315
Ann Arbor				
U. North Carolina	3,816,889	1/757,700	5,574,589	197
Chapel Hill	4,498,112	1,532,525	6,030,637	257
North Carolina State				
University of Texas	9,754,457	1,082,424	10,836,881	303
Texas A&M	10,707,593	2,440,001	12,947,594	242
Austin				
University of Wisconsin	11,831,820	3,434,944	15,266,764	315
Madison	3,469,491	1,095,286	4,564,777	188
Milwaukee				
Average Designated Peers	84,620,200	26,794,554		279
University of Maryland	**5,006,531**	**3,417,307**	**6,423,838**	**162**
College Park	1,963,836	209,231	2,173,067	464
Baltimore City	365,819	273,963	639,782	371
Eastern Shore	1,093,379	459,962	1,553,341	195
Baltimore County				
Average University of Maryland				202

Source: Institutional reports included in the State Board for Higher Education publication, *A Comparison of the University of Maryland with Its Peer Institutions*, December, 1983.

Table 5.2*
Deficiencies in Space by Type Following the Department of Space Planning Guidelines

	FY 87	FY 91	FY96
Classroom	-101,063	-93,471	-61,033
Class Laboratory	-217,982	-198,310	-175,450
Non-Class Laboratory	-117,434	-136,125	-70,679
Office	-82,965	-48,211	40,225
Total For All Categories	-889,091	-808,203	-458,700

[1] Data 'holds harmless' the effect of UMCP's five–year plan to reduce undergraduate enrollments.

systematic drainage mechanism.

5.3 Peer Comparisons

Deficiencies in facilities are significant when the campus is viewed in isolation. When the campus' facilities are contrasted to peer institutions, these deficiencies become striking. A study of College Park's peer institutions conducted by the Maryland State Board for Higher Education (now the Maryland Higher Education Commission) revealed that gross square feet (GSF) per full-time equivalent students (FTES) at peer institutions averaged 279 GSF/FTES in non-auxiliary facilities or 70% more than College Park's 162 gross square feet of space per full-time equivalent student Indeed, College Park not only has the least amount of space per student among its peers, it has the least amount of space in the former five campus University of Maryland System. These findings are highlighted in Table 5.1 and Figure 5.2.

When the campus' facilities inventory is compared to the space guidelines established by the Maryland State Department of State Planning, similar deficiencies in space by type of space emerge. Table 5.2 identifies these deficiencies for Fiscal Year (FY) 1987, FY 1991, and FY 1996. Even with the approved plan to reduce the number of undergraduates at College Park by 20%, glaring deficiencies in the areas of class laboratories and non-class laboratories will still remain.

5.4 Major Initiatives

Capital Projects and the Facilities Renewal and Deferred Maintenance Program. The need for new or renovated facilities affects virtually every area of the campus and is directly related to the campus' mission of service to the Citizens of the State of Maryland. There are two principal methods for addressing these needs. First, through an ongoing program of deferred maintenance and facilities renewal. Second, through the major renovation and new facility projects outlined in the campus' five–year Capital Budget.

In 1988, the State provided the first commitment toward funding a major program of facilities renewal at College Park. This program represents a partnership be-

tween the campus and the State in that institutionally generated funds, from indirect cost recoveries, are combined with State general fund support in order to fund the program. The goal of the program is to provide a funding base for facilities renewal in the amount equal to 2% per annum of the estimated replacement value of the campus Physical Plant. Continued State support for this program is critical.

The second way in which the facility needs of the campus are met is through the State-Supported Capital Budget. In recent years, the level of State support has been sporadic and extremely limited. On the average, the campus has received only $10 million annually. Table 5.3 and Figure 5.3 provide a recent history of State authorized bonds versus the campus' request. As highlighted in these exhibits, the average $10 million received by the campus is only about 40% of the amount requested and it is about a fifth or sixth of the amount needed.

Development of a Facilities Master Plan. In order to make effective use of its resources, the campus is currently in the process of updating its Facilities Master Plan. This plan will provide guidance to the campus in the siting of future facilities; land use; physical infrastructure; design and approval decisions including landscaping; and building design criteria. In addition, given the growing size and importance of the facilities renewal program, the impact of facilities renewal and deferred maintenance projects will also be factored into the plan. Finally, the recently developed plan for the enhancement of the College Park campus will provide the parameters for the development of the Facilities Master Plan. In particular, the Master Plan will incorporate the impact of changing technologies and academic program requirements.

5.5 Areas Targeted for Improvement

Consistent with the campus' goals and objectives, there are five primary areas targeted for facility improvements:

1 Instruction and Research

2 Public Service and Community Outreach

3 Campus Life

4 Recreation and Athletics

5 Auxiliary Facilities

Outlined below is a brief description of projects in each of these areas:

Instruction and Research. In soliciting materials and perspectives for the preparation of this enhancement plan, one concern dominated all others: the need to provide adequate space and facilities for College Park's instructional and research programs. Among the most serious needs cited repeatedly by faculty and staff from across the campus:

- faculty offices providing enough space, quiet, and security to allow faculty to hold private office hours with students, to make the campus their preferred place for research and writing, and to protect personal belongings, books, and university equipment from theft and from damage due to deferred maintenance;
- office space for research assistants and graduate students adequate for teaching and research responsibilities;
- well-maintained and acoustically sound classrooms, capable of using advanced technology, as required by individual instructors and courses;
- several state-of-the-art teaching theaters for conducting lecture courses relying extensively on advanced computing, communications, video and audio-visual technologies;

TABLE 5.3

UMCP Request Versus Funds Provided Through Issuance of State Bonds

Year	University Request for UMCP*	Approved Bond Funds-UMCP**
1975	$18,285,000	$ 9,550,000
1976	20,370,000	18,447,000
1977	11,975,000	4,225,800
1978	11,050,000	1,475,000
1979	14,830,000	8,495,000
1980	15,560,000	5,265,000
1981	17,220,000	8,482,000
1982	28,905,000	13,200,000
1983	17,220,000	6,655,000
1984	25,955,000	20,748,000
1985	23,330,000	10,991,000
1986	34,130,000	3,320,000
1987	63,290,000	18,135,000
1988	24,925,000	13,075,000
1989	43,149,000	6,845,000

* Dollars have been rounded.

** Source: "Historical Summary of Capital Improvements Authorized by General Assembly through 1983"; "Capital Appropriations approved by Legislature, 1984-87."

- informal meeting space promoting intellectual community and the casual sharing of ideas among faculty and between faculty and students;
- graduate student lounges;
- modern, well-equipped, and safe laboratories;
- specially constructed facilities such as 'clean rooms' and computer laboratories; and
- space adequate to support undergraduate and graduate student research projects.

In order to attract the most qualified and capable students and faculty, College Park must provide updated instructional and research facilities. Several of the projects currently included in the campus' Five-Year Capital Budget are outlined in Table 5.4.

Failure to provide adequate facilities for the type of instructional and research programs outlined above could jeopardize the stature of internationally renowned colleges needing special facilities, such as the College of Computer, Mathematical and Physical Sciences and the College of Engineering, and could do major damage to programs in all colleges that the campus has taken years to build.

Public Service and Community Outreach. One of the ways in which a campus enriches the life of its community is to make available through public lectures, concerts and performances, the intellectual and cultural resources of the campus. College Park is currently severely limited in the types of programs it can offer by the lack of quality instructional and performance facilities. In its Five-Year Capital Budget, however, the campus proposes to construct a new Performing Arts Facility. This facility will provide space for the Theatre, Music and Dance programs. It will also significantly improve the inherent problems in the Tawes Fine Arts Building related to sound transmission and ill configured spaces. Such improvements will reduce the current conflict between instructional and performance spaces. The campus proposes to raise private funds to fund on a partial basis the public performance–space portion of the project.

The campus also plans to continue its efforts to improve the campus' physical environment including landscaping and public seating areas. In the self-study report conducted for the campus' Middle States accreditation review, the campus also proposed the construction of a Visitor's Center to provide information and an orientation to the campus.

Facilities Supporting campus Life. One of the major goals of the College Park campus is to improve the quality of campus life for students, faculty, and staff. This year a committee was established to explore the feasibility of a new or expanded Faculty/Staff Club facility on the College Park campus. In the interim report, the co-chairs of the committee, Dr. J. Robert Dorfman and Dr. James H. Lesher, noted that the primary and pressing need for such a facility is that it will enable campus faculty and staff to both socialize and conduct routine academic business, business that now

Figure 5.3

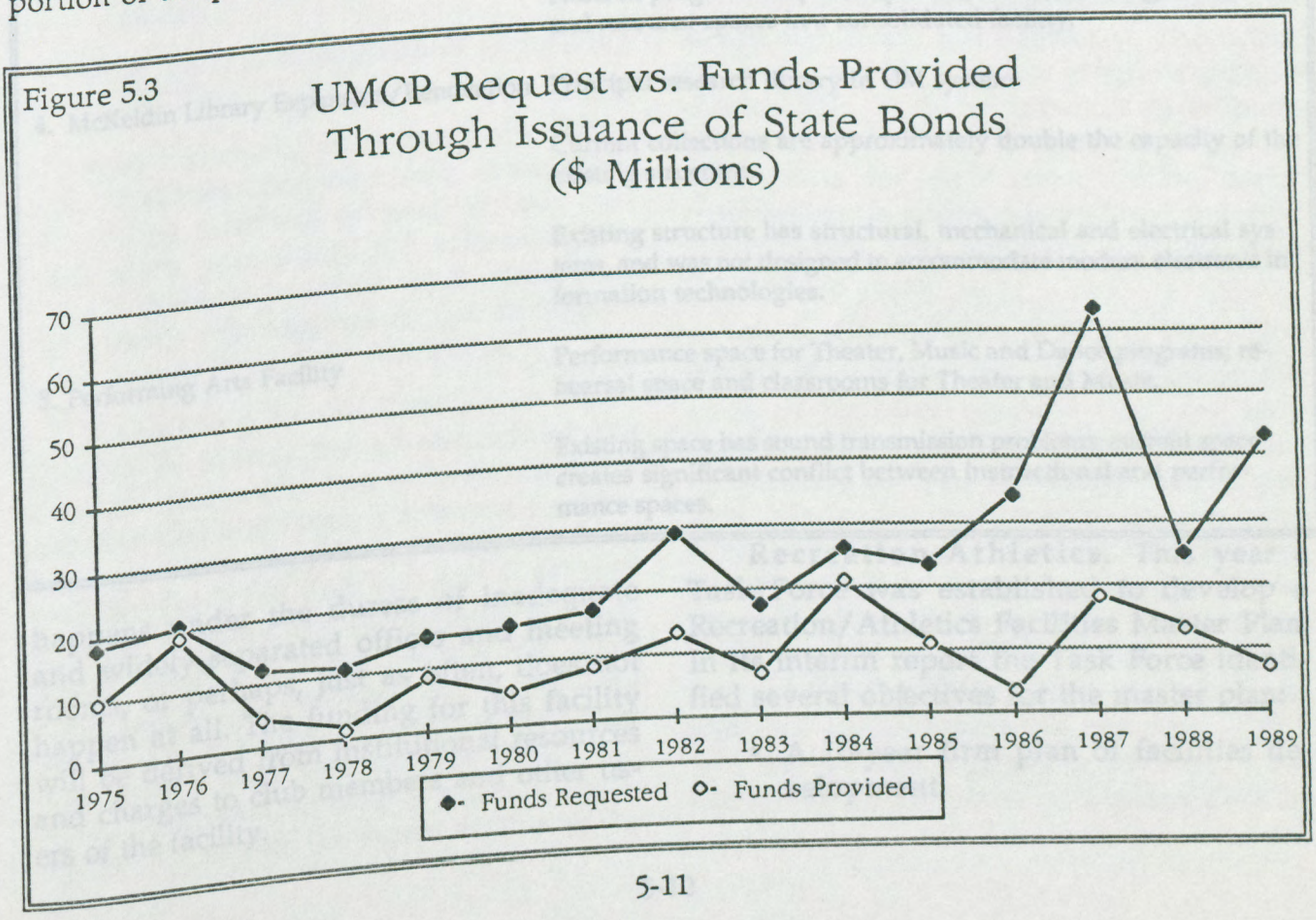


Table 5.4

Highlights of the College Park Five-Year Capital Budget

Project	Justification
1. Multimedia Instructional Center	The current deficiency in classroom space, relative to Department of Space Planning's space guidelines, is approximately 101,063 net assignable square feet.
	Much of the existing space is of poor quality. Correction of deficiencies is not feasible. Facility requires proper acoustics and environmental controls.
	Modern facilities will include computer workstations, integrated networks, video, and modern projection technologies.
2. Computer and Space Sciences Bldg.	Rapidly growing and overcrowded programs.
	Nationally recognized instructional, research and academic support programs.
	Critical space shortages.
3. Business and Management / Public Affairs	College is developing a well-balanced MBA program and stronger, research-oriented doctoral program.
	Shifts in programs require expanded office, teaching, research and resource spaces in a consolidated facility.
4. McKeldin Library Expansion/Renovation	Principal research library in UM system
	Current collections are approximately double the capacity of the existing structure.
	Existing structure has structural, mechanical and electrical systems, and was not designed to accommodate modern electronic information technologies.
5. Performing Arts Facility	Performance space for Theater, Music and Dance programs; rehearsal space and classrooms for Theater and Music.
	Existing space has sound transmission problems; current space creates significant conflict between instructional and performance spaces.

happens under the duress of inadequate and widely separated offices and meeting rooms, or perhaps, just as often, does not happen at all. The funding for this facility will be derived from institutional resources and charges to club members and other users of the facility.

Recreation-Athletics. This year a Task Force was established to develop a Recreation/Athletics Facilities Master Plan. In its interim report the Task Force identified several objectives for the master plan:

- A 10-year firm plan of facilities development.

Table 5.5

Resource Requirements

New Construction, Major Renovation, Facilities Renewal and Deferred Maintenance and Auxiliary Facilities

FY 1990 - FY 1999

(a) New Construction and Major Renovations ($50 x 10 years)	$500 million
(b) Facilities Renewal and Deferred Maintenance ($13.5 x 10 years)	$135 million
(c) Auxiliary Facilities (facilities renewal plus in-process bonding)	$150 million
Estimated Resources Required	**$785 million**

- A financing plan for the capital and operating budget requirements of the facilities plan.
- An interagency agreement for shared use-financing-management of the facilities.
- A physical assessment of all existing facilities.
- A sufficiency assessment of existing facilities compared with space planning estimates of need for our student population and intercollegiate athletics program and compared with our aspirations for such programs, including peer status.

According to the Task Force chair, Charles F. Sturtz, the assessment of the campus' recreation and athletic facilities has "been by and large, a sobering exercise because we have profound deficiencies in present facilities and in the aggregate amount of space for recreational-athletic-instructional programs." While the Task Force has not as yet identified a financing plan to address these deficiencies, it is clear that such a plan will involve significant State and private, as well as campus, funding. In this regard, the recent actions of the State in providing a match of $1 in State funds for each $3 in private funds for the renovation of athletic facilities is viewed as a very encouraging sign.

5.6 Resource Requirements

The campus' needs in the facilities areas are significant but necessary. The financial implications of such a program are also considerable. Table 5.5 provides an estimate of the scope of the campus' resource requirements for new construction, major renovations, facilities renewal and deferred maintenance, and auxiliary facilities over the next ten years

In reviewing Table 5.5, it is important to note three significant factors. First, in the areas of facilities renewal and new construction, the campus' plans to identify institutionally derived resources, such as private giving, indirect cost recoveries, and alternative financing approaches, that can be committed to the program. Second, in the area of auxiliary facilities and campus based projects, such as the Faculty Club, the costs of these projects will be derived from fees and other sources of revenue. Third and most importantly, the ability of the University of Maryland at College Park to

initiate such a facilities program is dependent on two questions. What kind of university does the State of Maryland want? And what kind of university does the State of Maryland need?

Chapter 6: Computing Facilities

6.1 Goals and Objectives

College Park's computing initiatives have been defined by broadly based campus computing priorities and policy committees, including the Committee on Academic Computing Policy (CACP). In addition, these goals have been supported by campus policy and priority committees (APAC, the Priorities Committee and the Middle States Subcommittee on Computing and Library Resources.) Key goals include:

- providing faculty, staff and students with access to the full range of academic and administrative computing technologies, from desktop microcomputers through mainframe and supercomputers;
- providing the entire College Park community with equitable access to a diverse set computing tools and technologies. That diversity which College Park has identified as a key institutional goal must be present in all key resources. Computing must support the varied instructional, research and service programs which are present throughout the campus, and the campus must ensure that all at College Park receive equitable access to these resources;
- ensuring that computing technologies are integrated appropriately into the teaching, research and service activities of the campus;
- developing a significant distributed computing base (networked workstations supported at the collegiate or department level);
- developing an enhanced staffing structure capable of supporting the outreach, consulting, communications, software development, and user services needed to make distributed computing successful;
- providing a new generation of end-user interfaces to make all computing resources significantly easier to use by all members of the College Park community;
- continuing to expand the range and sophistication of large scale, scientific and administrative computing services required to support intensive computation in the sciences and in engineering;
- providing the campus, in cooperation with the Libraries, with access to rich electronic information resources; and
- providing a significantly more integrated computing environment using common tools across many hardware platforms.

A flagship research campus must, if it is to fulfill its very mission, employ state-of-the-art technology in its teaching and research programs.

A university capable of state-of-the-art research and instruction benefits a state in many ways. Students are provided the training to allow technology-intensive industry to make the state its base, and the prospects that students will be employed in

satisfying and rewarding ways is increased substantially. A strong computing base ensures that Maryland remains competitive for the nation's best faculty, staff and students, and that the University remains competitive for national grants, contracts, and honors.

Beyond these benefits, an investment in computing technology ensures that Maryland remains a center of leading-edge technology research and development in those areas key to the state's economic development and growth.

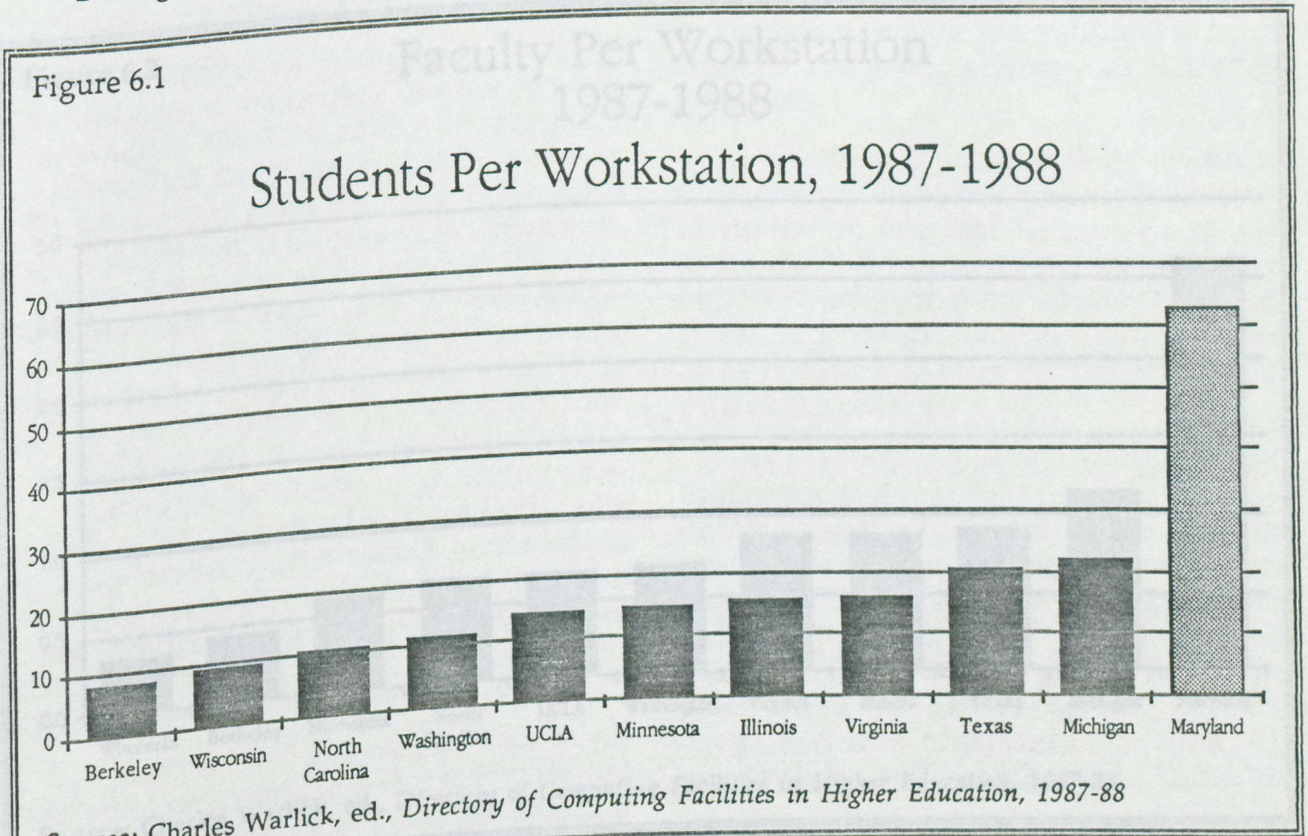
And, improved and modernized administrative computing help the campus reduce administrative burdens and overhead while improving managerial effectiveness and accountability throughout campus operations and programs.

6.2 Current Status

During the past five years, the campus has made significant progress in developing a quality computing environment for faculty, staff and students. Indications of the progress of computing include:

- College Park implemented and manages the largest of the national research networks sponsored by the National Science Foundation;
- College Park was chosen to be the host institution for and to showcase its computing achievements at EDUCOM'88, the nation's largest and most important annual academic computing conference
- the campus is in the process of expanding its high speed data network to include all academic buildings and offices and many classrooms. Software developed by College Park for its computer network is distributed nationally for use at other institutions;

Figure 6.1

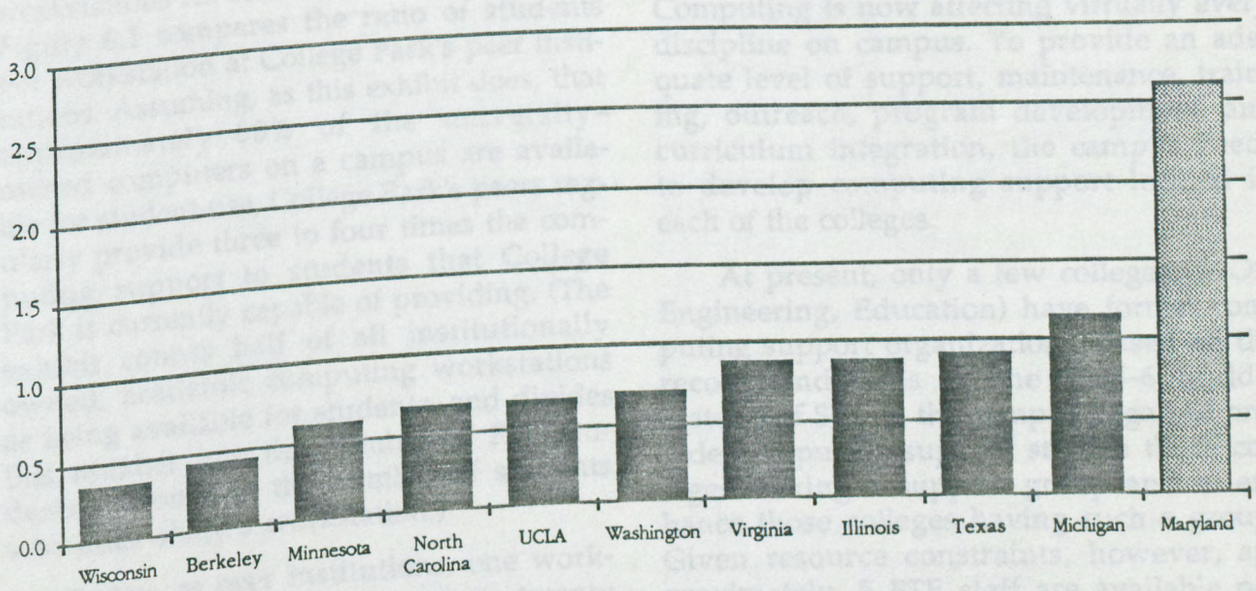


Source: Charles Warlick, ed., *Directory of Computing Facilities in Higher Education, 1987-88*

- College Park is a member of the leading computing consortia in higher education, sponsored by such vendors as IBM, Apple, DEC, Sun Microsystems, and NeXT;
- With campus, collegiate, and departmental sponsorship, College Park has become a leader in integrating computing into its instructional programs. Faculty in almost every discipline have integrated computing tools into the curriculum. Our Physics Department, for example, working collaboratively with the American Association of Physics Teachers and with FIPSE, is developing a model high school and introductory college physics curriculum, using advanced concepts and methods made possible by microcomputing technology;
- Believing in the importance of computing technology to many aspects of undergraduate, graduate and professional education, College Park has established a program to provide students across the campus with access to advanced computer workstations;
- College Park is a member of leading research consortia providing researchers with access to advanced supercomputers; and
- College Park is in the process of significantly upgrading its administrative computing infrastructure, replacing older COBOL based systems with a modern mainframe hardware architecture supporting relational databases, fourth generation languages and microcomputer database access technologies.

During the past several years, the campus has achieved a significant degree of excellence in academic computing. As is so of-

Figure 6.2



Source: Charles Warlick, ed., *Directory of Computing Facilities in Higher Education, 1987-88*

ten the case at College Park, however, such excellence has been achieved by the careful leveraging of external resources, such as third-party vendor donations and federal grants and contracts. State funding has only recently been available to support major programmatic academic computing initiatives.

While much has been accomplished, College Park is only now in the process of developing a quality computing infrastructure for faculty, staff and students. Much of that infrastructure remains to be developed, including:

- workstations for faculty, staff and students;
- distributed computing support;
- staff support;
- supercomputing access; and
- completion of administrative computing upgrades.

Workstations. Among the serious deficiencies in the current computing environment is the availability of computer workstations for students, faculty, and staff. Figure 6.1 compares the ratio of students per workstation at College Park's peer institutions. Assuming, as this exhibit does, that approximately 50% of the university–owned computers on a campus are available for student use, College Park's peers regularly provide three to four times the computing support to students that College Park is currently capable of providing. (The exhibit counts half of all institutionally owned, academic computing workstations as being available for students, and divides this number into the number of FTE students to compute the number of students who must share a workstation.)

Today, at peer institutions, one workstation is provided for every ten to twenty students. College Park provides workstations for every sixty students. While workstations are now fundamental to writing, learning, and research in most fields, the shortage of microcomputer workstations is particularly acute because of the campus' strength in the sciences and engineering, disciplines which have intensive requirements for student computing access.

As the base instructional and research technology for work of all sorts and in all disciplines, the shortage of desktop computers for faculty and staff is as serious as the shortage for students. Peer institutions have already equipped every faculty member, on average, with a desktop computer (assuming that approximately 50% of institutional academic workstations are for faculty use). At College Park, on the other hand, in the absence, until 1988-9 of a funded workstation acquisition program, the campus has one workstation available for every 2.5 faculty. (Figure 6.2) And, at present, no program exists to provide workstations to non-tenure track teaching faculty (whose numbers are substantial in the sciences and social sciences) or to College Park staff.

Distributed Computing Support. Computing is now affecting virtually every discipline on campus. To provide an adequate level of support, maintenance, training, outreach, program development, and curriculum integration, the campus needs to develop computing support located in each of the colleges.

At present, only a few colleges (BSOS, Engineering, Education) have formal computing support organizations. Based on the recommendations of the 1985-6 Middle States Self Study, the campus began to provide computing support staff to those colleges lacking a support group and to enhance those colleges having such a group. Given resource constraints, however, approximately .5 FTE staff are available per

college through the campus' Computing Associates program.

Supercomputing. Supercomputers are now considered essential to many engineering and scientific disciplines.

College Park is the nation's largest user of supercomputer cycles of any university lacking its own supercomputer. The campus currently uses the equivalent of one Cray 1 supercomputer annually (7,000 hours of supercomputer time) for faculty research.

At present, the principal sources of supercomputer cycles is the National Science Foundation. NSF–funded supercomputer center growth has not kept pace with national needs or national demands, particularly, as each year, new disciplines discover the benefits of supercomputing, and compete for an essentially static pool of access time.

Given the critical importance of supercomputing to such fields as Physics, Chemistry, the medical biological sciences, climate research, superconductivity research, Engineering, computer graphics, and biotechnology, many states have already acquired a supercomputer to support basic and applied research at their universities. Unlike such states as Mississippi, Alabama, Florida, North Carolina, Minnesota, Texas, New Jersey, Pennsylvania, Kentucky and Ohio, Maryland lacks an academic supercomputer.

Lacking a supercomputer, Maryland's users are subsidizing supercomputer development in other states, and are losing an opportunity to train advanced undergraduates, graduate students, and faculty in this leading–edge technology. And without its own supercomputer, College Park may, in years to come, lose faculty to institutions providing greater access to top-of-the-line scientific computing services.

6.3 Major Initiatives and Resource Requirements

The principal thrust of campus computing is to advance quickly toward a technology infrastructure of strategic advantage to the campus, the University and the State of Maryland. That infrastructure includes:

- **Workstations** for students and faculty for instruction and research, and for staff for administrative information management;
- **Distributed computing centers and support services;**
- **Coordinated support services linking CSC and collegiate-based support organizations;**
- **Stable support for the Computer Science Center;**
- **Support for new instructional and research technologies and services;**
- **A modern administrative computing environment** based on relational databases, fourth-generation languages, and quality end-user computing access.

Computer Workstations. Microcomputer-based workstations are now the base technology for academic work of all sorts and in all fields. Based on resource requirement estimates (hardware, software, upgrades, maintenance, and miscellaneous support) identified in the *University of Maryland Academic Computing Plan* (April 1988), and approved by the Board of Regents, the campus has embarked on a program to equip every faculty member and every twenty students with a powerful computer workstation by 1993. At present, the plan funds a portion of student workstations out of student tuition (2% of all tuition is devoted to workstations for students). Full student funding and funding

for faculty workstations must be obtained from sources other than tuition, for tuition revenues alone will amount to approximately 25% of the funds needed to implement fully the student component

Estimates of student workstation requirements vary by discipline. Most estimate that by FY'89 students should be using a workstation a minimum of 4 hours per week to augment classroom study. (Some disciplines such as Computer Science already use computing as much as fifteen to twenty hours per week.)

To supply workstations to students at this rate will require the acquisition of 375 new workstations per year. Providing one workstation per faculty and computing support staff will also require (at a four year phase-in and transition) 375 faculty workstations per year, at a total cost for faculty and student workstations of $2.2 million for the first year of the phase-in program. ($3,041 * 375 = $1,140,375 for faculty workstations; $2,775 * 375 = $1,040,625 for student workstations; total annual cost for 750 workstations = $2.181 million.

Full payment for these 750 workstations and associated hardware and software will require a $2.2 million expenditure for each of four years. To continue the four year phased implementation of workstation and related costs (hardware, software, maintenance, some support, security, and related costs) will require the following incremental additions to base budget: $2.9 million (FY'91, $700,000 of which are funds missing from the FY'90 budget; $2.2 million (FY'92). After FY'92, funding remains constant at an accumulated base budget of $8.8 million per year (accumulated since FY'89), allowing a 25% phase-in and phase-out of workstations, keeping the campus technologically current.

As the previous discussion indicated, these goals have already been met or surpassed by our peer institutions. By the 1990's, many peers will have attained student:workstation ratios of 5:1. Without enhancement funding, our goals of the plan will not be met until the mid-1990's.

This *Plan* also provides the campus with an opportunity to expand the program to include College Park staff (including faculty research associates, library staff, and administrative staff performing information management tasks) who provide essential administrative and academic support functions requiring access to this technology. To support administrative and academic staff computing using similar goals and phase-in strategies, will require incremental additions to base of approximately $1.1 million per year for four years.

Resources required for student, faculty, and staff workstations: (incremental additions to base): FY 91: $4.0 million; FY 92: $3.3 million; FY 93: $1.1 million; FY 94: $1.1 million.

Distributed Computing Support Centers, Staff and Equipment. To support departmental and collegiate computing, and to ensure that students and faculty are trained to use these resources appropriately, the campus must develop local, collegiate or departmental-based (as is appropriate) computing support centers, such as those successful centers established by the Colleges of Education and Behavioral and Social Sciences, Business and Management, and the Department of Computer Science.

Beyond the critical issue of staff support, nearly all of the campus' colleges have special computing requirements. Engineering, Architecture, and Housing and Design need CAD/CAM workstations. Geography requires digitizers and wide-bed plotting devices. Arts and Humanities requires image and text scanners and high quality desktop publishing hardware and software. Although the Computer Science Center's

mainframe resources and the campus' workstation acquisition plan will satisfy many campus computing needs, requirements specific to each major discipline will continue to lead to the development of specialized centers such as those already operating in the Behavioral and Social Sciences, and the Colleges of Education and Engineering, and the Department of Computer Science.

Funds requested for departmental computing centers will provide needed improvements to existing facilities and allow new facilities to be created. Half of the requested funds will support staff at new centers and existing centers. The other half of the requested funds will allow specialized equipment acquisitions for these centers.

Resources required: a base of $3.5 million per year in staff and equipment support for distributed computing centers (an average of $500,000 per center per year for each of seven such centers).

Coordinated support services needed to make distributed computing effective across the campus' disciplines. The recent *Middle States Self-Study* recommended that College Park employ a new breed of computing support professionals--College Computing Associates. These Associates are intended to supplement rather than replace the services of existing CSC support staff. Unlike existing staff, these staff would reside at the College level, and would provide direct support and outreach services to departmental faculty engaged in instructional and research computing activities of all sorts. Whereas staff located in the CSC would provide a higher level of technical support, the College Associates would be skilled in computing, but would also have a more purely academic rather than technical orientation. Their real expertise would consist in their ability to translate the specific needs of a field of study into realistic computing projects and activities. It is anticipated that the Associates would have as strong a background in the field or fields supported as in computing.

In FY'87, trial funding (.5 FTE per college) was established to inaugurate this program. College Park will need ten FTE's to ensure that all colleges are able to participate in the program which coordinates CSC technical expertise with collegiate discipline expertise.

Resources Required: $500,000 annually.

Supercomputing. Access to supercomputer resources is now essential to research throughout the sciences and fields of engineering. Nearly two dozen U.S. universities have already purchased supercomputers. By the early 1990's, it will, in all probability, be a requirement of a serious scientific research university to have its own dedicated supercomputer facility, particularly since national support for supercomputer consortia is expected to decline sharply. If College Park is to retain and enhance its capabilities as a graduate research institution, conducting advanced research and providing state-of-the-art training to students, it should establish a University of Maryland supercomputer center.

Total costs, including the University's own operational portion, will amount to approximately $12 million per year. Assuming participation from the State of Maryland, from the private sector in Maryland, and from the federal government, College Park will require $4 million annually to defray those costs not contributed by its partners in the establishment and operation of the Maryland Supercomputer Center.

Stable support for centralized computing (Computer Science Center). While usage of the Computer

Science Center grew dramatically between 1982 and 1986, effective funding dropped off sharply because:

- other campuses are relying less on the services of the CSC and have established their own centers;
- direct funding from the federal grants has diminished because the federal government believes (with great justification) that the campus should provide computing to its faculty as basic support similar to the way in which it supplies telephones and library services; and
- the market for timesharing services has diminished significantly as much work has moved to the desktops of computer users.

In the past, other campuses, the federal government, and the private sector have helped defray the cost of College Park's centralized computing services. At present, the Computer Science Center's budget requires that it obtain approximately $1,000,000 from outside sales of timesharing services. Given the structural changes in the usage and funding of computing which have taken place, over the next five years a higher fraction of the real costs of instructional and research computing will have to be borne through traditional State-appropriated funding.

The campus' Committee on Academic Computing Policy has studied the Center's reimbursable budget for the past two years, and has recommended that the CSC's reimbursable budget be reduced to an amount that approximates the funds which are estimated as being readily available from grants and contracts over the next five years. At a minimum, such external support should amount to $200,000. In FY'91, the reimbursable budget should be reduced to $600,000; beginning in FY'92, the budget should be reduced by an additional $100,000 per year, until it reaches a floor of $200,000.

The restructuring of the CSC budget is a matter of great concern to College Park. Shortfalls in the CSC's reimbursable budget will become campus deficits; such deficits have caused and will continue to cause severe problems during the end-of-year budget closeout period.

Support for new research and instructional technologies and services. Beyond supercomputing, a number of new technologies have recently emerged which are changing the nature of academic computing services, technologies, and support. These new technologies and services include:

- database and hypermedia (context-linked databases) technology;
- multimedia technologies, including sound and video (film and disk-based), all now considered to be essential to instructional computing in the 1990's, and to support the AT&T Teaching Theater, the planned Multimedia Instructional Center, and other computer-aided lecture halls and environments;
- academic software development, including consulting about research and instructional software, development of software, and development of interfaces for faculty developed software; and
- graphics intensive computing technologies.

Resources Required: Experimental development and staff support for these technologies (to be used both at the CSC and locally, by individual colleges), will require expenditures of approximately $400,000 per year (half for new staff, half for new equipment), should the campus desire to continue its leadership role in academic comput-

ing technology and support.

Administrative computing.

College Park's ability to implement effective operational self-governance and accountability will depend to a significant degree on the quality of the campus' administrative information systems. Ensuring that those systems are redesigned and are technically capable of implementing fully Senate Bill 459 governance and accountability measures are an essential element of this Enhancement Plan.

The campus will continue the direction established in its FY 1987 *Information Processing Plan* for administrative computing. This plan includes: a centralized organization charged with the responsibility of supporting administrative computing for the campus; computing support revolving around a large mainframe computing resource located at the campus; acquisition and development of a large, complex integrated application software system to support the administrative functions at College Park; continued evolution of office automation through centralized support and training; and expanded and enhanced access for campus users.

The University of Maryland College Park Campus has begun a yet to be funded initiative to elevate the quality of administrative computing to a level that equals the administrative support function that is available on the campuses of its peer institutions. The initiative consists of several components, each of which must be funded in order to accomplish the objective the campus has set. College Park has allocated internal Campus funds to accomplish the initial steps of the program. Significant new resources must be identified if progress is to continue at a rate which is necessary for the campus to move toward its goal of excellence.

Migration to a New Mainframe Environment. The campus has determined that to position itself strategically with regard to administrative computing, it must migrate future administrative computing support from the Hewlett/Packard and UNISYS hardware environments to the newly acquired IBM environment. An organization has been put in place to manage that migration. Preliminary plans for the initiative have been developed. The migration will require funds for the purchase and implementation of large integrated systems for financial management and human resources.

Applications Conversion. Additional funding is necessary to supplement the current staff available to convert major software systems, such as the Student Information System, and the large number of other smaller support systems that exist at College Park. The estimated total funding requirement necessary to accomplish the migration of administrative applications over the next five years is $3.23 million.

Expansion of Hardware Capabilities. As mentioned above, the campus, with its own resources, began its support of the administrative computing initiative with the procurement of an IBM 3090 mainframe computer and operating system software. The campus also acquired a fourth generation database management system to facilitate the delivery of application services in the IBM environment. As applications are moved into that environment through execution of the migration plan, hardware capacities will need to be expanded. The IBM 3090 will have to be upgraded with a faster processor, more memory, and additional channels to support the additional workloads introduced. Disk capacity will require expansion to accommodate the increased data storage requirements generated by the new applications.

Resources Required:

The costs associated with hardware upgrades to support the administrative computing initiative at College Park over the next five years is estimated at $4 million.

Workstations. (See above.)

Training. Training for staff in the use of automated systems will be a requirement generated as a result of the initiative. Establishment of a training facility to be used in providing the staff education is necessary. Estimates for establishing and equipping such a training facility are approximately $250,000.

Funding for each of the areas addressed above will allow the campus to move toward establishing a level of administrative computing support consistent with its overall goals. Total five-year support requested is $7.48 million, exclusive of administrative support workstations, discussed earlier in this chapter.

Chapter 7: Library Facilities

The explosion of information and its rapid rise in price makes it impossible for any single library to approach completeness in its collections. Libraries can cope only if they become part of an information sharing network. Information in machine readable form can be shared via high-speed data lines, printed works via TeleFax or similar machines. Library users will want to access this material remotely, and will require the capability of downloading large quantities of information onto remote workstations. The new generation of LIMS must be able to participate in this activity, and thereby further enhance the research activities of College Park faculty, students and staff. Costs for these capabilities and for the facilities to make best use of them are currently unknown, but it is important that a commitment be made that they will be borne... The University should send a clear message to the libraries and the campus community that it intends to establish a facility able to provide the maximum in modern research support.

–Victor Korenman (chair), "Library Advisory Committee Response to External Committee's Report," June 1988 pp. 9-10

7.1 Introduction

The hallmark, the intellectual center of a great university is its library–its storehouse of knowledge, the symbolic heart of a campus, a center of collegiality, teaching and research.

The College Park Libraries serve as the principal research libraries for institutions of higher education throughout the State of Maryland. In addition to the obvious benefits which accrue from an important library–increased ability to attract faculty and students of national rank, institutional prestige and pride, a major source of knowledge for the public and private sectors–enhancing the College Park Libraries will enhance the entire University of Maryland System, and provide a resource for the educational community throughout the state.

7.2 Goals and Objectives

Through the activities of such groups as the Middle States Library Resources Subcommittee and the Library Advisory Committee, the campus has, during the past several years, identified a number of critical goals for the College Park libraries. These include:

- providing the library with the resources necessary to support an outstanding graduate and research oriented university, including enhanced resources for library collections;
- enhanced staffing, particularly in such areas as collections development, management and preservation; and

- Support for a new generation of library information technologies.

7.3 Current Status

During the past several years, the College Park Libraries have accomplished much of significance:

- construction of a major addition to McKeldin Library is underway;
- recognizing that the strength of a library's collections is key to the academic strength of a great university, the Libraries have placed a renewed emphasis on enhancing College Park's collections, and the campus has moved aggressively to reallocate campus funds for collections development;
- given the need to perform systematic reviews of collections to support planned collections development, the Libraries have hired additional collections development specialists;
- given the need to deal aggressively with deteriorating materials, a Preservation Officer has been hired to enhance the materials preservation program;
- new kinds of information technology have been integrated into the mix of existing library services, including the distribution of video materials via the campus video system, the piloting of videodisc-based database and bibliographic tool access projects, the Library now offers an extensive array of computer-assisted database access services, and McKeldin Library has begun offering microcomputer-based tools for student, faculty and staff use;
- a major upgrade to the Library Information Management System (LIMS) is now underway. The first stage of that upgrade, the specification of new systems requirements and the development of an ambitious RFP will be completed this semester.

The campus has recognized the importance of library enhancement to the academic quality of College Park. New resources have been made available to the Libraries, campus MARC (now CPS) requests for the past several years have identified the Libraries as one of the campus' most important priorities. And the Library has moved aggressively in many areas–facilities development, collections enhancement, preservation, new information technologies–to take advantage of those resources that have been made available.

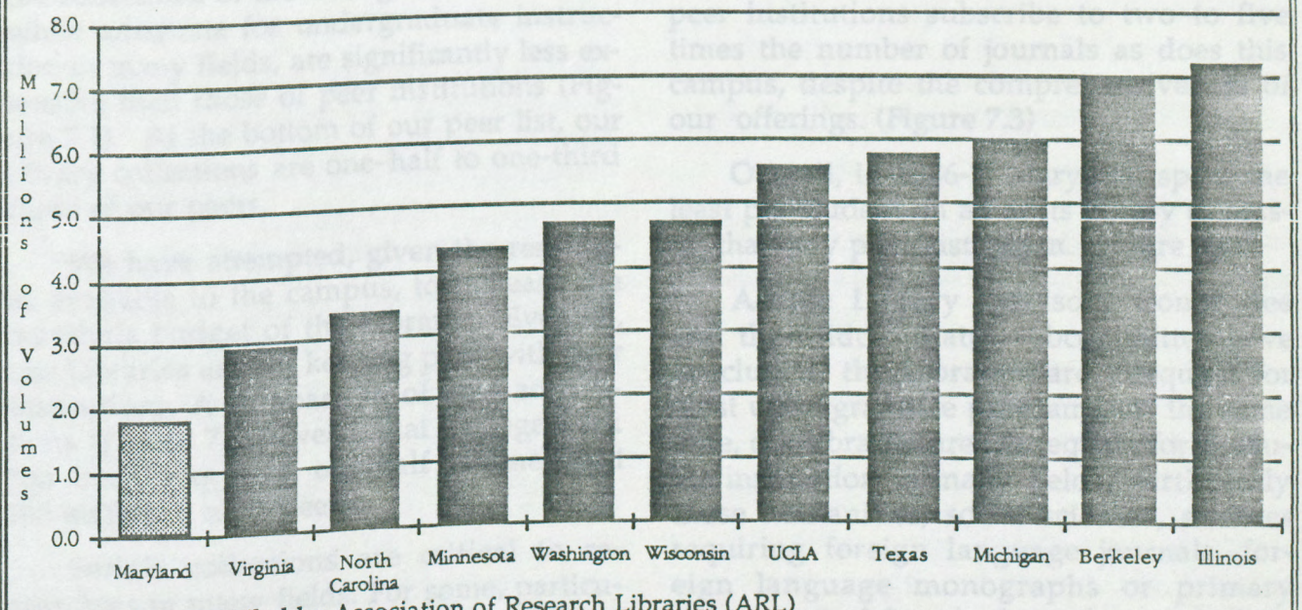
Despite the significant recent progress that has been made, decades of persistent underfunding and neglect by the State have created serious deficiencies in staffing and in collections which can only be remedied by a concerted, targeted enhancement effort. These deficiencies have been noted and commented on at length by the Middle States Self-Study Library Resources Subcommittee, the Library Advisory Committee, and by a external review team which visited the campus in 1987.

At the same time, the proximity of College Park to the cultural resources of Washington, D.C. and to major research organizations in the metropolitan area, as well as the involvement of the campus in many high-technology initiatives, offers College Park a significant opportunity to become a leader in library innovation, particularly in the use of library technology to remedy collections deficiencies.

Collections. Because of historic underfunding by the State, the campus has made the improvement of library collections a major priority for the past several years.

Figure 7.1

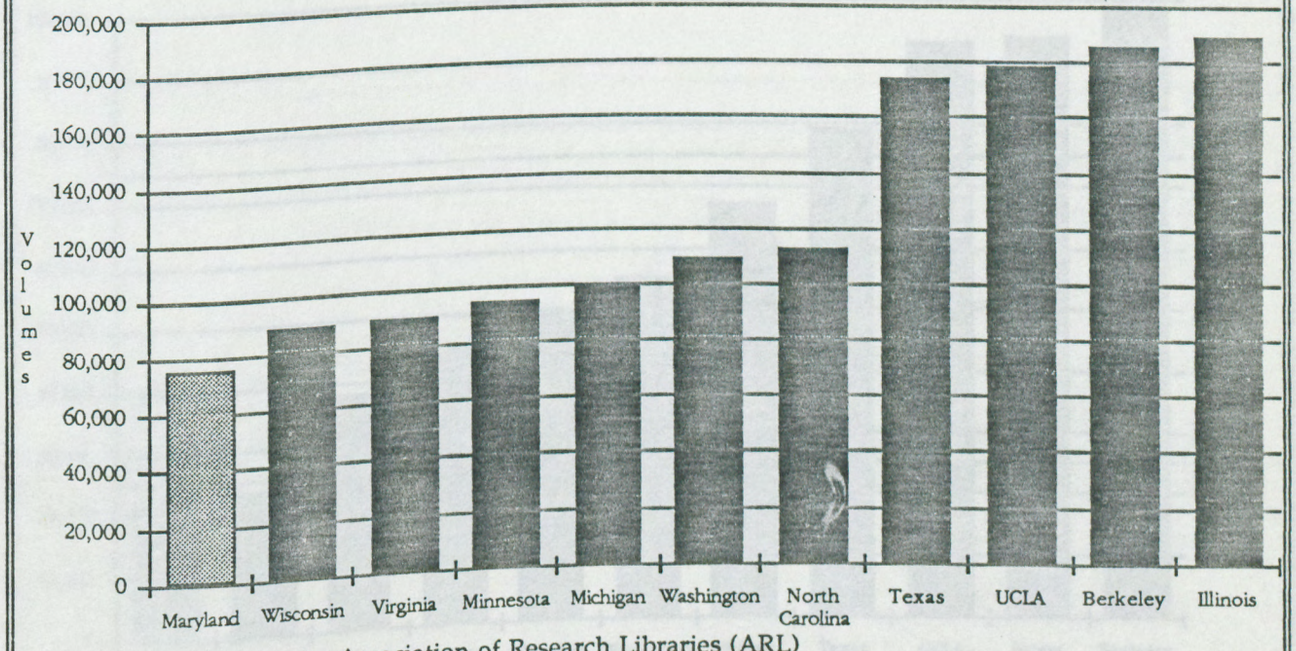
Library Holdings, 1986-7 (Bound Volume Equivalent)



Source: data compiled by Association of Research Libraries (ARL)

Figure 7.2

Net Increase in Library Holdings, 1986-7



Source: data compiled by Association of Research Libraries (ARL)

That our Libraries have been and ought to continue to be a significant priority is evident from reviewing peer statistics. Using any available quantitative yardstick, the collections of the College Park Libraries, while adequate for undergraduate instruction in many fields, are significantly less extensive than those of peer institutions (Figure 7.1). At the bottom of our peer list, our library collections are one–half to one-third those of our peers.

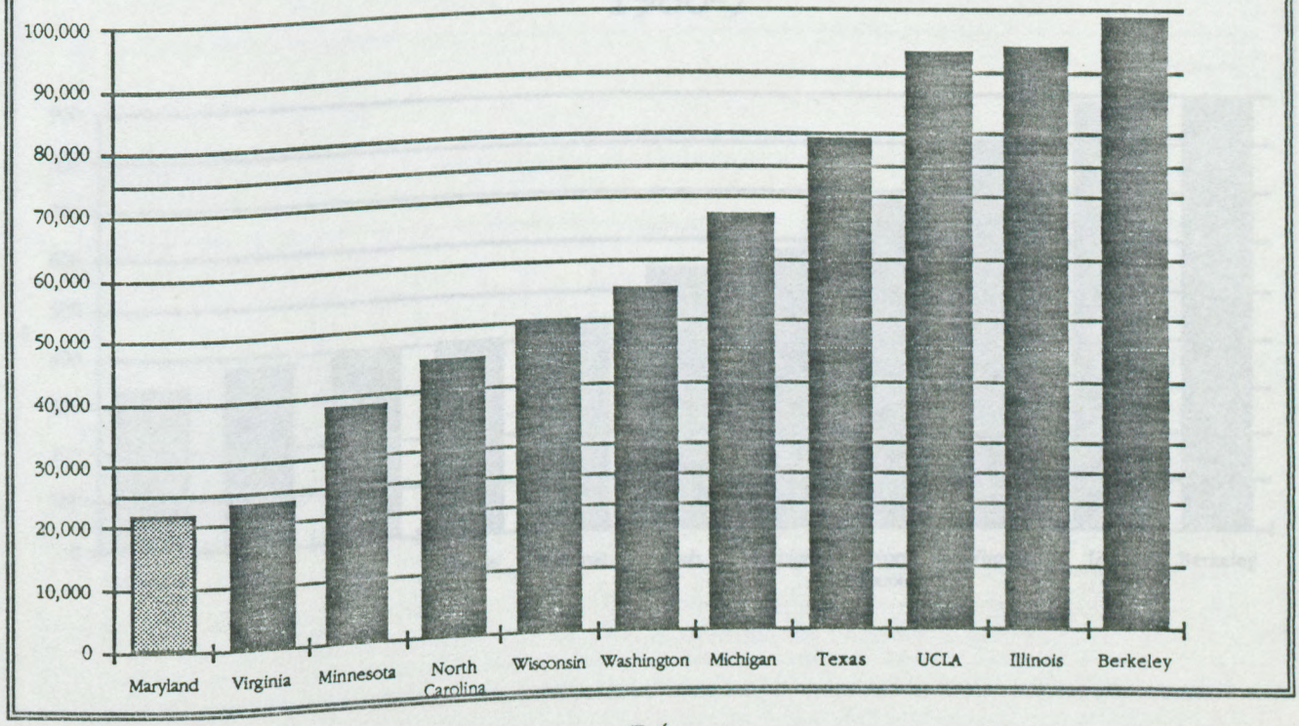
We have attempted, given the resources available to the campus, to increase the materials budget of the Libraries. Even so, our Libraries are not keeping pace with peer institutions. A comparison of new acquisitions (Figure 7.2) reveals that College Park has been acquiring one-half to one-third the materials of its peers.

Serials collections are critical to researchers in many fields. For some, particularly in engineering and the sciences, current serials are the most valuable materials collected by a library. As in other materials, College Park's serials subscriptions place at at the bottom of its peers, and, with one exception, by a considerable margin. Most peer institutions subscribe to two to five times the number of journals as does this campus, despite the comprehensiveness of our offerings. (Figure 7.3)

Overall, in 1986-7, Maryland spent the least per student on all of its library expenses, than any peer institution. (Figure 7.4)

As the Library Advisory Committee and the Middle States subcommittee have concluded, the Libraries are adequate for most undergraduate programs. At the same time, our libraries are inadequate for graduate instruction in many fields, particularly those humanities, social sciences, sciences requiring foreign language journals, foreign language monographs or primary source materials. And, as the curriculum

Figure 7.3 Serials Held at Institution, 1986-7



diversifies, adding more emphasis to non-Western societies and cultures, the Libraries' collections of foreign language materials and English-language journals published abroad will have to expand to keep pace with a broadening curriculum.

Staffing. Enhancing the collections requires a commensurate staff enhancement. Indeed, at major research libraries, for every additional dollar spent on materials, two dollars must be spent on staff and related materials processing costs.

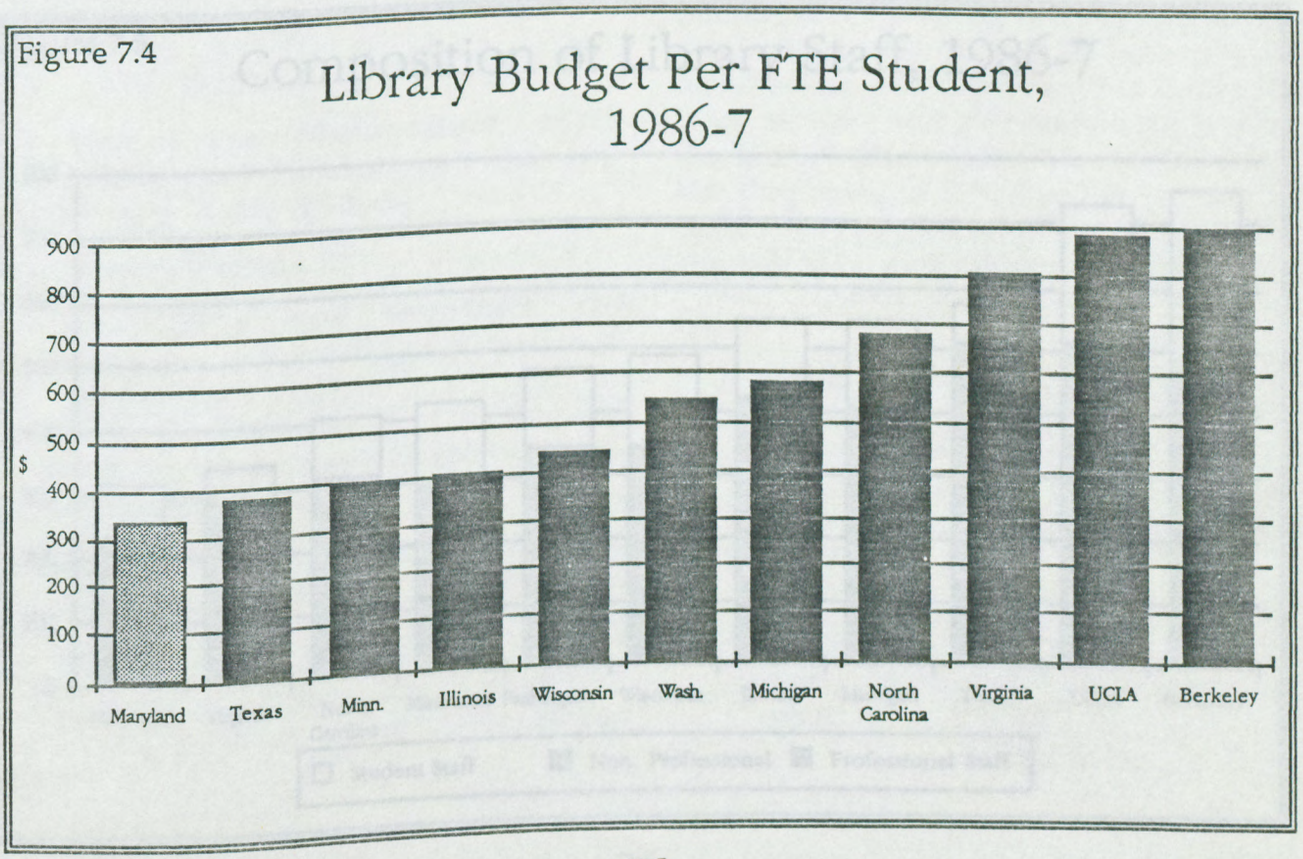
Maryland's library staff is the smallest of any peer institution–even considering its substantial use of student help (Figure 7.5). Maryland also has the smallest number of professional staff at any peer institution–reducing the bibliographic, reference, collections management, research support and professional training which professional librarians can make available to the campus community.

The Library Advisory Committee has strongly supported the Libraries' request for additional staff lines for collections development/bibliographers (twelve lines), and fifty-three additional lines supporting a variety of key library activities. Should these lines be approved, College Park would still remain at or near the bottom of peer institutions in the size of its library staff.

Other Needs. In addition to substantially improved collections to support graduate instruction and research, and a sizable increase in staff, the campus has identified other key needs:

- upgrading library information technology, including replacing the aging GEAC system with a new library automation base as well as investing in end-user technologies to provide patrons with a variety of reference, database, and analysis tools, and ensuring that McKeldin basement space is adequate

Figure 7.4



to house new technology. These techologies are important for library management; they are also important for instruction across the curriculum and for advanced research in many fields;

- preservation, to ensure that the materials currently in the collections have as long a usable life as possible; and
- retrospective conversion, to complete the entry of all library collections into the computerized card catalog and database.

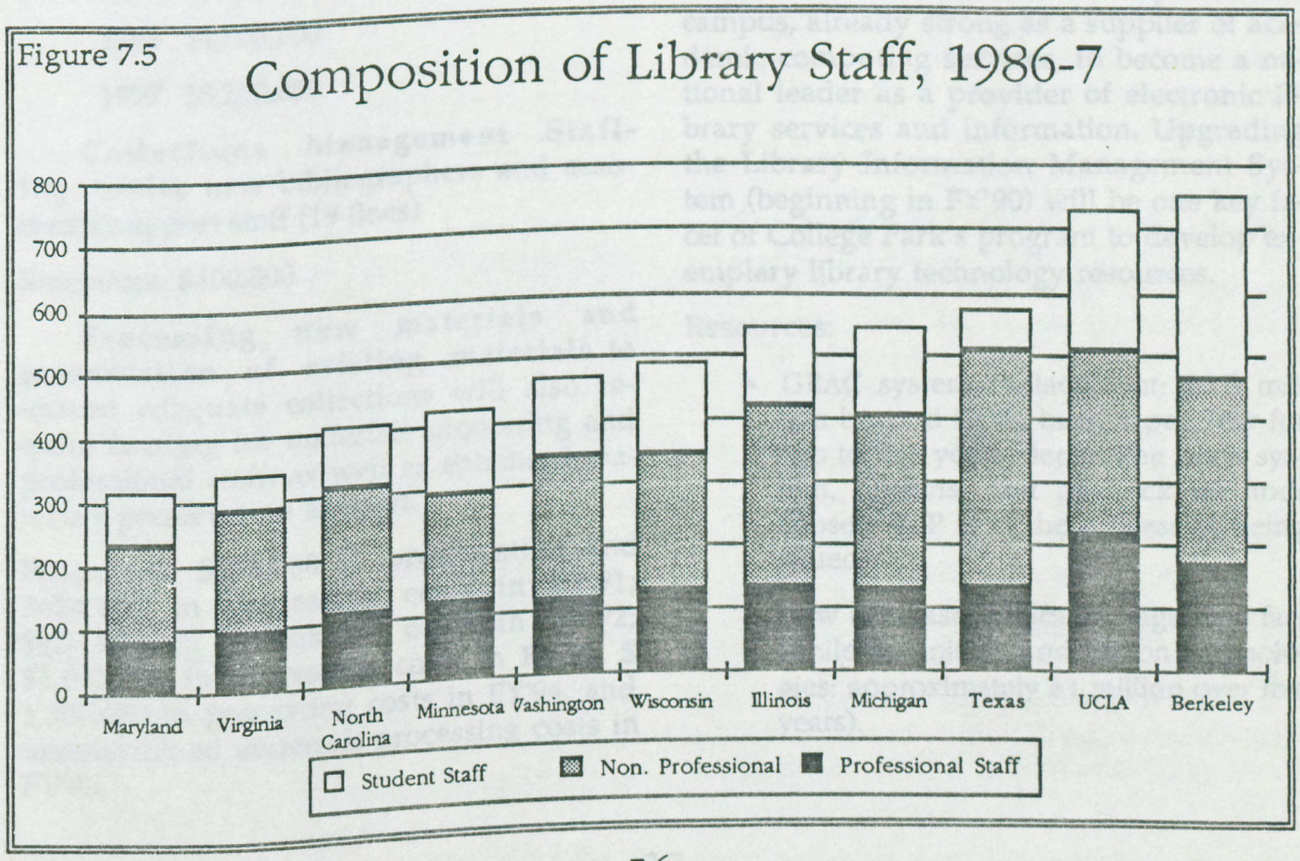
7.3 Major Initiatives and Resource Requirements

Library Collections Development and Management. College Park will enhance substantially its library collections, particularly in those areas needed to support graduate-level research in College Park's core fields of undergraduate and graduate study. To support graduate-level research, the campus will need to enhance its serials subscriptions across key sciences, social sciences, arts, and humanities: its collections of foreign language materials, and its collections of humanities and social science primary source materials essential for graduate instruction and research.

Resources:

- In FY 91, an FY 90 base budget of $4,900,000, providing adequate coverage of English language publications in fields offered on this campus to the level of graduate study and some research. For stable-state collections, given FY'90 enhancement, no additional funds are needed for base materials.
- To provide coverage of current publications in French, German, Russian, Italian, Spanish and Portuguese in the same fields and at the same intensity level, the Libraries have estimated that

Figure 7.5



$1,500,000 should be added to the base budget.

- Augment the base budget in any given year by 10-12 percent to cover inflation and to maintain steady-state buying power.

- To provide comprehensive, or at least very strong, collections in approximately 20 core fields which will serve as a foundation for excellence, it is estimated that $250,000 per field per year would be needed per field. By phasing in three fields per year, over seven years, required enhancement funding would be phased in as follows:

1991 $750,000

1992: $1,500,000

1993: $2,250,000

1994: $3,000,000

1995: $3,750,000

1996 $4,500,000

1997 $5,250,000

Collections Management Staffing: twelve new bibliographers and associated support staff (19 lines)

Resources: $400,000

Processing new materials and preservation of existing materials to ensure adequate collections will also require funding for materials processing and professional staff, as well as enhanced materials preservation support.

Resources: $136,000 in preservation and $624,000 in processing costs in FY'91; $884,000 in processing costs in FY'92; $1,042,000 in processing costs in FY'93, $ 1,300,000 in processing costs in FY'94, and undetermined materials processing costs in FY'95.

Enhanced staffing in areas beyond collections development.

Resources: fifty-three lines; $1,250,000 in additions to FY'90 base budget.

Library Information Technology: libraries are ceasing to be warehouses of information. New kinds of computing and information technology allow library materials to be accessed from faculty and student homes and offices, and integrated seamlessly into research reports and databases. An increasing number of library materials are now available, principally, in electronic form. For those materials not in machine-readable form, scanning and facsimile transmission technologies are maturing rapidly, allowing the swift input of hard-copy materials capable of being transmitted directly to high-resolution workstations (of the sort being acquired by the campus workstation initiative) in faculty and staff offices.

The enhancement effort will permit the campus, already strong as a supplier of academic computing services, to become a national leader as a provider of electronic library services and information. Upgrading the Library Information Management System (beginning in FY'90) will be one key facet of College Park's program to develop exemplary library technology resources.

Resources:

- GEAC system replacement: $0.6 million beyond FY'90 budget per year for two to five years, depending upon system, options, and payback methods chosen--RFP is in the process of being issued;

- new database, optical storage, and facsimile scanning transmission technologies: approximately $1 million over five years).

Chapter 8: Enhancing Student Life

8.1 Introduction

Learning often begins in the classroom, but a university is not doing its job if learning–education in the broadest of senses–is viewed as ending at the classroom door. A campus should offer rich classroom and extracurricular experiences, aided by appropriate academic support services if it seeks to provide opportunities for intellectual, social, civic and moral growth.

A number of recent studies which have gained national attention have called for higher education to address more purposefully and clearly the important role that life beyond the classroom has in creating an effective, stimulating and transforming college experience.

Recent College Park studies, including the *Middle States Self–Study* have identified a number of ways in which 'student life'–the collegiate experience–can and should be enhanced:

- **Improving Access to Services:** the campus should improve the availability (including via electronic media) of key services to students and expand means of disseminating timely information about the campus and its service and cultural offerings;
- **Integrating Commuting Students into the College Park Community:** a significant proportion of College Park students commute to campus. The campus should improve its programs for these students, and will undertake initiatives designed specifically to improve their integration into the campus community;
- **Developing Leadership and Service Programs:** College Park's students will be future leaders of Maryland. It is important that the campus expand its extracurricular programs which complement its academic programs. These programs should be be designed to produce well-rounded students, capable of serving as leaders in their communities and in their chosen fields of study. These programs should include special seminars as well as a range of expanded internship and public service opportunities for College Park undergraduates. Public service should become a significant part of the College Park undergraduate experience; and
- **Enhancing the Residential Experience:** The campus should ensure that its residential facilities and programs for undergraduate and graduate students help to integrate in-class and co-curricular experiences. The campus should make a special effort to address the special problems of graduate students, particularly married graduate students and students with families.

Educating Maryland's students is one of the most important missions of the College Park campus. A truly well-rounded education does not stop at the classroom door, but involves a diverse and enriching set of

opportunities in and out of the lecture hall.

Promoting a quality environment for students increases campus retention rates and enables the campus to recruit the most talented of Maryland's students. When retention rates are increased, the campus becomes a more effective institution, making more effective use of its educational resources.

Finally, the relationship between successful and satisfied students and their *alma mater* is a lifelong one. Students who have benefited from an enriching undergraduate education will develop life-long relations with the university enriching their own lives and contributing to the development of a richer sense of community for all faculty, students and staff.

8.2 Goals and Objectives

The quality of student life at College Park is determined by a variety of factors including the intellectual environment on campus, the scope and effectiveness of student services, the sense of community found on campus, the kinds of opportunities available to involve students meaningfully in the life of the campus, the range of co-curricular programs, and the suitability of recreational and service facilities. These factors ought to shape the goals of an effective an enriching student life program. Such a program ought to ensure, therefore, that

- campus support services and programs are accessible, and are made so through effective communication and information services;
- students have a more intense involvement in the ongoing life of the campus through appropriate intellectual, social, and recreational/athletic activities, as well as meaningful out-of-class interaction with faculty and staff;
- the campus takes every opportunity to provide serious occasions for learning beyond the classroom, including leadership and service programs which assist students in becoming more involved, informed, well-rounded and socially responsible citizens.

8.3 Current Status

The campus has taken the opportunity to review many facets of student life during the past several years. The Maryland Longitudinal Study (MLS), studied the characteristics, attitudes, and reactions to the collegiate experience of the Fall 1980 entering class.

The generally positive findings of the study indicated that students at College Park use and are satisfied with many campus services. Overall, College Park students indicate higher satisfaction with the college experience than the national norm. While deriving most satisfaction from their social life, they reveal less satisfaction with campus opportunities for recognition. It is not surprising that those students who reported the highest levels of campus involvement also reported the highest levels of satisfaction with their college experience.

The Middle States Self-Study also indicated wide areas of satisfaction, but reported several areas in which the campus could be more "user friendly" in its delivery of services. Specific areas identified as needing attention include:

- improving the intellectual community among faculty and students and ensuring that College Park's diverse populations are well-integrated into that community;
- improving student access to information;
- increasing the planning and coordina-

tion among campus events;

- improving assistance to campus newcomers;
- reducing the complexities involved in navigating campus services, requirements, and regulations;
- improving the degree of friendliness shown in routine business operations;
- improving the ambience of public areas on campus;
- reducing the logistical problems associated with on-campus traffic, parking and transportation; and
- providing greater means of recognizing individual achievement.

In addition to the concerns identified in the *Middle States Self-Study*, two other factors present significant challenges to the quality of the student experience at College Park. First, a high proportion of students do not live on or near campus. These students commute to the campus from their homes in the metropolitan area for classes and for other campus program offerings. Students who commute have a unique concern with transportation issues; multiple life roles; integrating campus, home, and neighborhood; and developing a useful and satisfying sense of belonging to the campus community.

A second problem is equally serious. College Park exists within a larger environment, one that is both a blessing and a challenge. The campus is located within the rich cultural environs of the nation's capital. While that environment provides an array of opportunities for enhancing a student's educational experience, it also presents a challenge to our sense of community, a greater challenge to community than that found at many peer institutions where campus activities have little competition from their surrounding towns or suburbs. These two factors, the large proportion of commuting students living off-campus and the complementary yet competing cultural environment of the Washington, D.C. metropolitan area, require that we work more creatively and effectively to create a compelling sense of community that supports and enriches the educational experience of all students.

Today, the quality of life for our students and, indeed, for our society as a whole faces a number of social, cultural, public health, and economic, challenges, among these: rapid cultural, social and technological change; the challenge of living in a community which is increasingly ethnically and socially diverse; the challenge of a post-industrial economy; the challenge of AIDS, alcohol and drug abuse, and the challenge of an aging society.

Dealing with challenges, with diversity, with change requires that the experience of students at College Park be rich and diverse, full of meaningful learning experiences beyond the traditional classroom. Educational programs are needed to teach students about important health issues affecting them now and in the future, to assist them in valuing the cross-cultural dimensions of our society, to charge them to make responsible choices, and to offer them the opportunity to gain those leadership skills needed to be effective agents of responsible change.

Student life on the College Park campus should provide a rich, at times supportive, at times challenging environment in which to learn, to think, and to mature. To ensure that College Park continues to provide such an environment, enhancements should be made to the delivery of services and programs to students, to the sense of community at College Park, to the opportunities for campus involvement, and to the kinds of co-curricular learning programs of-

fered by the campus.

8.4 Major Initiatives

The following initiatives are proposed to enhance the lives of students at College Park.

Making campus support services and programs more accessible through effective communication and information services.

Computerized Information Resources. Enhancements should be made to the campus' computerized information service, AIM (Access to Information about Maryland). Information about campus programs and services should be readily available to all members of the campus community. Currently, print media and informal communications are our primary sources of information.

College Park has taken a leadership role in academic computing, and the campus is moving rapidly to expand its information environment enhanced by computing and telecommunications networks. These can and should be used to provide additional vehicles for information dissemination. Computerized information systems such as AIM need to be expanded, both in terms of the number of terminals supported and in the quality and quantity of information in their databases.

The campus should acquire twenty-one additional public access terminals for AIM. These should be placed in campus resident communities, adjacent to major public service counters across campus, and at the vehicular entrances to the campus. New information offering a variety of self–help aids should be added to complement the information already disseminated by the system.

Visitors Center, Signs, Service Training Programs. Information and other assistance should be provided for newcomers to campus to make their transition into the community as smooth as possible. A more "user friendly" environment should be available to persons new to the campus, particularly if we are to succeed in recruiting outstanding students and faculty and to serve the campus' many constituencies. These improvements will also help our development efforts to attract new financial partners to support quality education, research and service at College Park.

The sheer physical size of the campus–as well as its many levels of administration–can be confusing to persons unfamiliar with the College Park. The establishment of a visitors center, increasing the number and visibility of signs, and establishing new training programs to develop a more service–oriented staff at all levels of the campus would greatly enhance our ability to welcome and serve newcomers to College Park.

Encouraging greater involvement in the day to day life of the campus and improved interaction with faculty and staff.

Lectures and Concerts. A significant increase in the number of lectures and concerts which feature individuals of significant accomplishment and distinction should be offered on campus. These should serve to improve the linkage between the intellectual lives of students in and out of the classroom. Efforts should be made to build upon the strengths of lecture series and related academic events sponsored by individual departments and colleges as well as University Community Concerts (UCC), the Student Entertainment Enterprises (SEE), and Stamp Union Program Council (SUPC). Our goal should be to offer a rich and engaging intellectual life for students through events capable of attracting a broadly based, heterogeneous audience

from across the campus.

Social Environment. The social environment of both undergraduate and graduate students should be enhanced. More opportunities for students establish their own sense of community should be provided. The establishment of an ongoing non-alcoholic coffee house could provide an alternative social forum for all students. And workshops emphasizing the development of interpersonal skills should be made available to students in a variety of settings.

Support for Commuter Students. Special programs for commuting students should be developed which allow these students to participate in the kind of campus life enjoyed by students residing at College Park. Programs might include the provision of special facilities which commuters might call their own, and which might increase the interaction between commuting and resident students, and designing short-term residential programs to enrich their collegiate experience.

Enhanced Residential Programs. The campus should develop residential facilities (in residence halls and in fraternity/sorority facilities) and programs for undergraduate and graduate students targeted at better integrating in-class and extracurricular experiences at College Park. Such activities might include increased opportunities to meet faculty outside of class, through meal programs, faculty sponsorship of extracurricular activities and other mentoring activities.

In addition to these programs, the campus should make a concerted effort to improve the residential opportunities for graduate students, many of whom find it difficult to locate affordable housing for themselves and their families. Indeed, the high cost of living in the Washington, D.C. area is one obstacle to attracting and retaining the nation's best graduate students, and to the timely completion of degree programs.

Increasing out of class learning opportunities, including leadership and service programs, which assist students in becoming more informed and socially responsible and effective citizens.

Leadership Development Programs. Development training opportunities should be provided for all students, enabling them to develop the skills needed to serve as leaders in their chosen fields and in their communities. Appropriate experiences might include: seminars and training workshops on leadership topics, leadership courses which provide an array of leadership training, education, and development opportunities, and retreats to provide in depth interaction with more experienced student leaders.

Leadership Curriculum Development. The principles of leadership and basic leadership skills training should be incorporated into the curriculum at all levels. The EDCP 108 classes which provide extended orientation to the campus should introduce the concept of leadership and the importance of taking advantage of leadership development opportunities while in college. Where appropriate, senior seminars in a given major might, for example, address key issues concerning leadership in that field of study, as one means of promoting leadership as students prepare to graduate and embark on new careers.

Values Clarification Programs. Students require opportunities for developing the skills needed to make thoughtful and socially responsible decisions. Among the opportunities to develop such skills which the campus might offer are seminars and debates on critical issues which require difficult choices among competing values.

Cultural Diversity Programs. Programs should be expanded which enable students to place a strong, positive value on the cultural diversity existing in our society. Such programs should broaden the cultural experiences of students and enable them to address effectively issues of racial, religious, sexual and related forms of prejudice. A diverse and culturally rich curriculum is one means of nurturing diversity. The campus should develop a rich array of concerts, lectures, seminars, tours, outings, and related out-of-class experiences which reflect the diverse heritages and orientations of all those who work and study at College Park.

Health Programs. Programs concerning alcohol and drug abuse, AIDS, and other significant health problems of which students are at risk should be expanded.

Community Services. Opportunities for greater involvement in community service should be offered to students. Such opportunities can provide a learning laboratory for understanding issues facing our society and for developing skills for addressing them.

In supporting these initiatives to improve the student experience at College Park, the campus needs to address a the quality and capacity of its residential, social, and recreational facilities. Existing recreational facilities which need renovation and refurbishing should be brought into full service for the athletic and recreational needs of the campus. A multipurpose recreational facility with options for aquatic activities, small scale competitive sports, and multipurpose activity space should be constructed. The Stamp Student Union should be renovated to improve inadequate building systems and to make the existing facility more functional for current student interests and needs.

Existing residential facilities which house the fraternities and sororities should be renovated to insure a safe and comfortable living environment. Additional residential facilities should be constructed for the historically black Greek organizations, as well as for graduate students, particularly married graduate students and those with families. The renovation plan for the residence halls should be followed. And, a student services building should be constructed which places under one roof in a coordinated fashion all of the service units that students must visit in managing their lives at College Park, from initial application, admission and registration through graduation.

8.5 Resource Requirements

Communication and information services: $547,000

- Computerized Information Resource: $42,000.00
- Visitors Center: $310,000.00 (Construction, $190,000; Operating expenses / year, $120,000)
- Signs: $85,000.00
- Service training, per year: $110,000 (2 trainees, 1 support staff, training materials)

Programs involving students in the life of the campus: $457,000

- Increased concerts and lectures, per year: $215,000.00
- Social environment, per year: $72,000.00
- Commuting student facilities: $60,000.00
- Commuting student programs, per year $55,000
- Residential programs, per year:

$55,000

Co-curricular programs $435,000

- Leadership development programs: $120,000
- Curriculum development: $65,000
- Values clarification programs, per year: $75,000
- Cultural diversity programs, per year: $80,000
- Health programs, per year: $60,000
- Community service, per year: $35,000

(These estimates do not include any facility costs apart from the Visitors' Center.)

Chapter 9: Administration and Administrative Support

> The faculty and staff at UMCP share a strong dedication to the campus and a desire to enhance further its many areas of excellence. However, this reserve of strength and enthusiasm is held in check by the lack of freedom from excessive external controls. this situation creates a dampening effect on the enthusiasm of the people at UMCP and ultimately adversely affects their performance. Excessive State micro-level controls send a clear signal to the faculty and staff at UMCP, i.e., 'We don't trust you.' These damaging controls exact a costly waste of energies in dealing with the restrictive barriers to efficiency which detracts from achieving the real campus goals of teaching, research, and service.
>
> – C. Peter Magrath, President, University of Missouri,
> Remarks from the 1986 Middle States' Accreditation Review
> of the University of Maryland at College Park

9.1 Introduction

As the foregoing chapters have indicated, College Park will require a substantial increase in operating and facilities budgets if it is to offer programs and services which are truly competitive with the best public universities in the nation. Funding enhancement alone, however, will not realize College Park's aspirations. If the campus is to use new resources wisely and effectively it must also modernize much of its administrative operations. To become a premier institution, College Park must

- **Implement Senate Bill 459**: that is, in accordance with the goals and objectives of Senate Bill 459, the campus must implement procedures and establish programs and mechanisms to increase its self-governance and its accountability to the State through the Board of Regents.
- **Streamline campus administrative procedures**: given the improved governance made possible by Senate Bill 459, the campus will improve, streamline, and make more efficient its support service procedures in such areas as Purchasing, Physical Plant and Personnel.
- **Ensure that administrative policies and procedures are guided principally by an understanding of the academic missions and goals of this institution.**
- **Enhance and reward College Park staff:** as teaching programs are enhanced and as the amount of research increases at College Park, the campus must enhance its teaching and research support staff, particularly in such areas as maintenance, secretarial/clerical and technical /

paraprofessional staff, and ensure that staff contributions are rewarded appropriately.

The people of the State of Maryland have a right to expect high quality and responsive services from their State supported agencies and institutions. College Park believes that is important to fulfill this obligation, and that its service mission can best be achieved by eliminating cumbersome and costly oversight that reduces institutional efficiency and effectiveness. College Park is committed to serving the people of Maryland and believes that the State will be better served if the campus is directly responsible for its own operations and administration, and is held accountable for the services it provides and for the excellence of its instructional, research, and public service programs.

9.2 Goals and Objectives

The primary goals and objectives of the College Park campus in the areas of administration and governance are targeted at improving the efficiency and effectiveness of campus operations. Specific goals and objectives include:

- Elimination of the damaging micro-level State controls that result in barriers to efficiency and replacing them with a process that is result oriented and which emphasizes post audit accountability for the use of state resources.
- Development of an Integrated Strategic Master Plan;
- Strengthen the methods by which the campus goals, objectives, initiatives and accomplishments are communicated to internal and external constituencies;
- Increase the use of advanced technologies for campus management;
- Increase private financial support for campus programs and facilities; and
- Development of mechanisms to promote a better understanding between those who provide administrative services and those who use them.

9.3 Current Status

Recent changes in the governance structure at the College Park campus combined with the passage of the Administration Action Plan for Higher Education, Senate Bill 459, will result in major changes in the areas of administration and governance at College Park.

Campus Level Changes. In accordance with the goals and objectives outlined above, three major issues must be addressed: Administrative Services; Development and Communications (described in Chapter 4); and An Integrated Master Plan.

Administrative Services. Based on the recommendations of the *Middle States Self–Study*, the campus instituted a number of changes. First, an evaluation process for academic support units was implemented. This process included procedures for independent expert reviews all Academic, Administrative, Student and Institutional Advancement units, including Motor Vehicles, Purchasing, Personnel, Payroll, Finance, Sponsored Programs, and Physical Plant. These reviews will be used to determine whether support units are meeting the needs of the academic community.

Second, mechanisms have been developed to increase understanding between administrative service providers and users. To date, two successful administrative conferences have been held and various Administrative Affairs departments have provided training for relevant staff in Academic Units.

The third principal change is under-

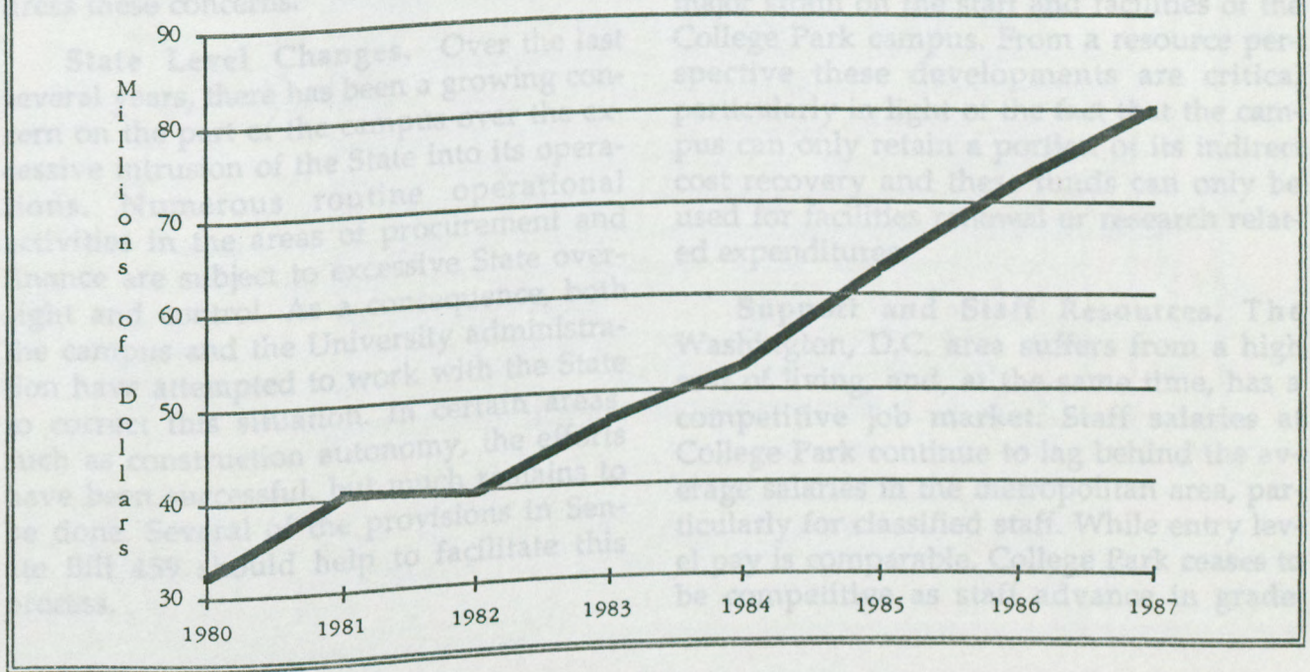
way. A Request for Proposal has been recently issued to replace the existing Financial Accounting System with a new on-line interactive system that will meet the financial management needs of departmental administration as well as campus/university accounting needs.

In addition to the major initiatives outlined above, the campus has also instituted a program of campus beautification including landscaping, signage, and the creation of outside seating areas. the campus also recently acquired a large mainframe computer and integrated application software to support the administrative functions at College Park. As a result of this action, the campus, starting in FY 1989, will begin to move all Administrative Computer Center (ACC) services into this new mainframe environment.

Despite the significant progress that has been made, the campus is still constrained by unduly restrictive and unresponsive state procedures in several key areas. For example, State purchasing regulations and procedures, introduced in 1981, are so complex that many procurements become time-consuming and frustrating exercises of back and forth communications between purchasing agents and the requisitioning department in search of the proper words and documentation to get the job done. In the area of Personnel, the University Classified System is closely coupled to the State System. As a consequence, it is unable in many instances to respond to the unique requirements of the University environment. Additional problems include a pay scale structure that in effect rewards excellence and mediocrity equally, and a maximum of six in-grade increases regardless of merit or length of service. An undesirable consequence of these factors is that 43% of the campus classified staff have reached the top of their salary range. Other problems attributable to State regulations and control also

Figure 9.1

Contract and Grant Awards to UMCP, FY 1980 - FY 1987



exist in the areas of Payroll and Finance.

The existence of cumbersome State procedures, however, should not be accepted as an ongoing cost of doing business. Last year the University was granted greater control over building design and construction. Under an agreement with the State, all architectural and engineering appointments and contracting and construction supervision have been delegated to the University by the Department of General Services. This delegation will result in reducing the time required to construct and renovate facilities and should greatly improve the quality of construction.

An Integrated Strategic Master Plan. In the report of the Middle States Commission on Higher Education, it was noted that: while various units on the College Park campus develop long and short range plans, the campus has suffered from the lack of a formal, institutional strategic planning process.

The development of the enhancement plan, mandated by Senate Bill 459, together with the process to update the College Park Facilities Master Plan, will hopefully address these concerns.

State Level Changes. Over the last several years, there has been a growing concern on the part of the campus over the excessive intrusion of the State into its operations. Numerous routine operational activities in the areas of procurement and finance are subject to excessive State oversight and control. As a consequence, both the campus and the University administration have attempted to work with the State to correct this situation. In certain areas, such as construction autonomy, the efforts have been successful, but much remains to be done. Several of the provisions in Senate Bill 459 should help to facilitate this process.

A basic tenent of sound management, however, is that with management authority comes accountability. Thus, while those charged with the responsibility for providing services must have the authority to make operational decisions, they must also demonstrate that State resources were expended in a responsible manner.

9.4 Peer Comparisons

Resources. Despite recent infusions of State funds into College Park and other segments of public higher education, the campus continues to fall in the lower third of its peer group in terms of State support per Full-Time Equivalent student (FTE). Figure 1.2 (Chapter 1) displays State support per FTE student for College Park and its peers.

While the level of State support per full-time equivalent student continues to lag relative to our peers, the level of research activity has grown dramatically at College Park. This growth is highlighted in Figure 9.1.

The data presented in Figures 1.1 and 9.1 are significant in that the lack of adequate State support per student and the growth in research activities have placed a major strain on the staff and facilities of the College Park campus. From a resource perspective these developments are critical particularly in light of the fact that the campus can only retain a portion of its indirect cost recovery and these funds can only be used for facilities renewal or research related expenditures.

Support and Staff Resources. The Washington, D.C. area suffers from a high cost of living, and, at the same time, has a competitive job market. Staff salaries at College Park continue to lag behind the average salaries in the metropolitan area, particularly for classified staff. While entry level pay is comparable, College Park ceases to be competitive as staff advance in grade.

(Figure 9.2) In order to keep talented classified staff, College Park will have to upgrade its classified staff pay and work to ensure greater flexibility in the classification and compensation of classified staff.

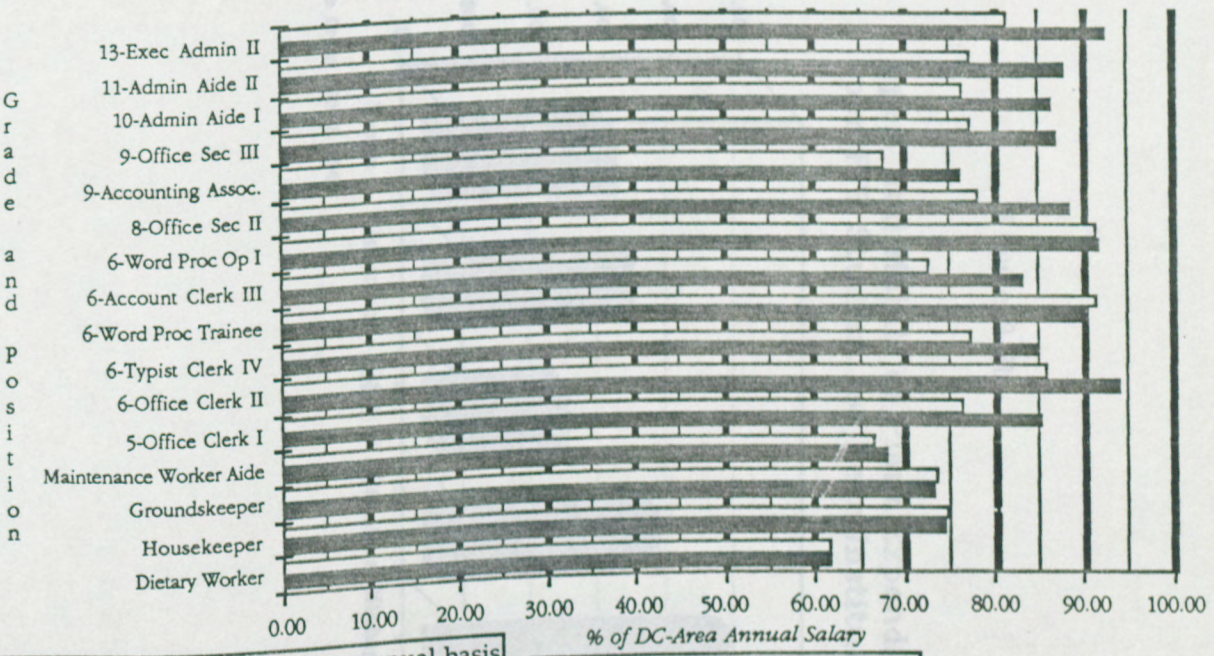
UMCP continues to lag behind its peer institutions in of support per FTE Student. College Park, for example, spends $679 per FTES on institutional support and $936 per FTES in operation and maintenance of the UMCP physical plant. These rates are well below the $1,022 per FTES for institutional support at the University of Michigan or the $1,612 per FTES for operation and maintenance of plant at the University of North Carolina-Chapel Hill. Rates for a selected group of peer institutions are presented in Figures 9.3a and 9.3b.

With regard to support staff ratios, the College Park campus provides less support staff per faculty member than its peer institutions. the campus is particularly deficient in the areas of service and maintenance staff and support staff, including secretarial/clerical and technical / paraprofessionals. the campus, for example, provides .28 FTE service/maintenance staff per faculty member and .77 FTE support staff per faculty member. Staffing ratios at Texas, however, are .73 service and maintenance staff per faculty member and 1.56 support staff per faculty member. Ratios for a selected group of peer institutions are provided in Figures 9.4a and 9.4b. These deficiencies translate directly into a lessened ability to compete for grants and contracts and to administer those awards which are awarded.

Deficiencies in the area of plant opera-

Figure 9.2

UMCP Classified Staff Salaries as % of Maryland/DC-Area Salaries



Salaries have been coverted to annual basis to reflect fully the effects of 35.5 hour work-week (UMCP) and 40 hour work week (DC area) differential on annual pay.

Figure 9.3a

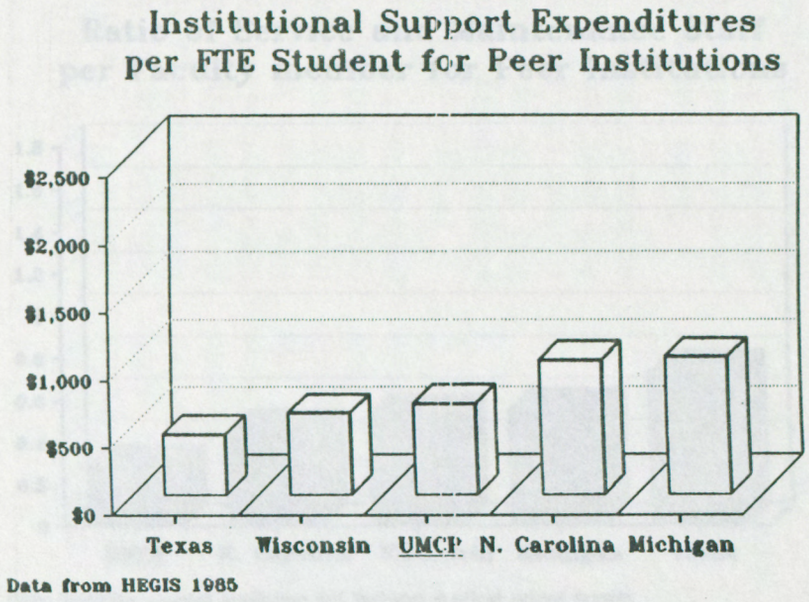


Figure 9.3b

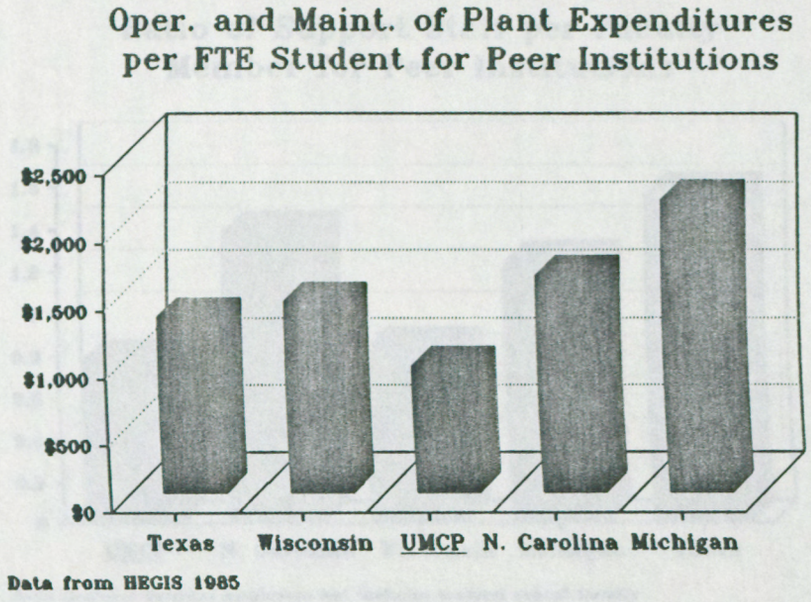
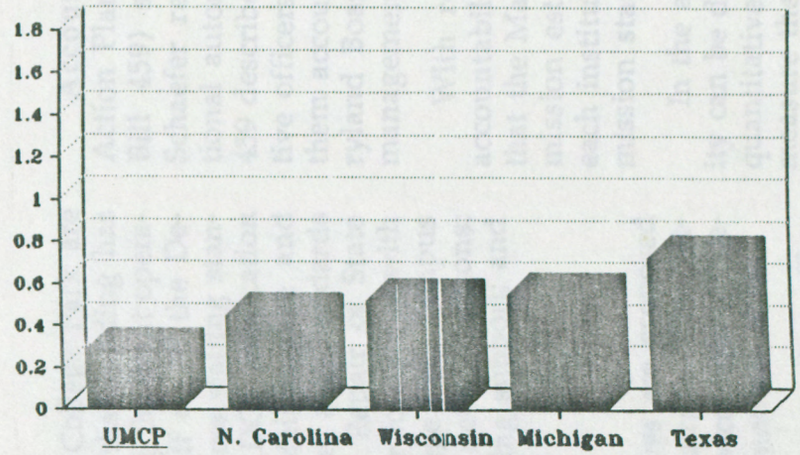


Figure 9.4a

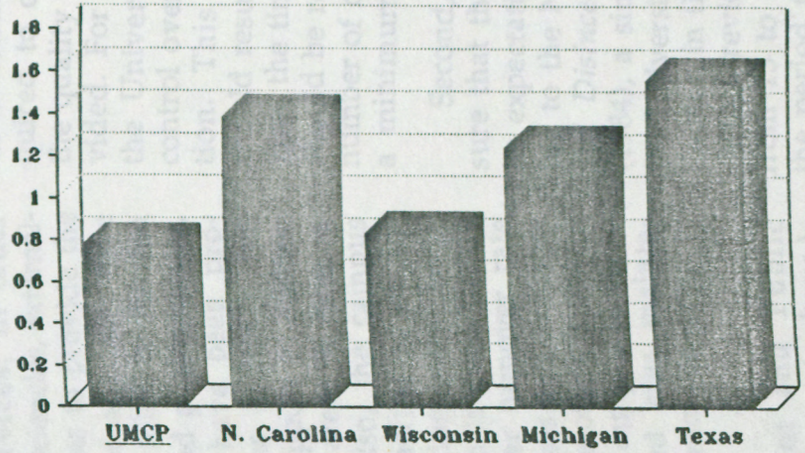
Ratio of Service and Maintenance Staff per Faculty member for Peer Institutions



Note: Excludes hospital employees but includes medical school faculty

Figure 9.4b

Ratio of Support Staff per Faculty Member for Peer Institutions



Note: Excludes hospital employees but includes medical school faculty

tion and maintenance at College Park are partially due to the fact that funding has not been provided to bring the plant operation and maintenance staff up to the Department of General Services staffing standards as outlined in the DGS publication titled "Comprehensive Maintenance and Repair Program; Guidelines and Standards for the Maintenance and Repair of State Owned Facilities." In order to comply with these standards, the College Park campus would require: 28.25 new positions; $197,600 in annual operating support; and $102,125 in start-up costs.

9.5 Major Initiatives

The following initiatives are proposed in the areas of: (1) Administrative Computing; (2) Administrative Services; and (3) Development and Public Communications:

Administrative Computing. (See above, Chapter 6).

Administrative Services. In order to address base budget deficiencies, externally imposed costs, as well as to provide the campus with the level of administrative support necessary for it to fulfill its mission of instruction, research, and public service, a number of initiatives have been proposed. Specific initiatives included improved fiscal and staff support to address critical deficiencies in the areas of finance, personnel, and police. Also, the campus will move from a contractual to an in-house approach to providing house keeping services. this approach is necessary in order to reduce the higher turnover rate among contractual employees and to insure quality service. In the areas of plant operation and maintenance, the campus plans to establish six decentralized area maintenance centers. Estimated Resource Requirement FY 1990 = $2,200,000

Promote Development and Public Communication. (See Chapter 4, above.)

Accountability. The Administration Action Plan for Higher Education (Senate Bill 459) signed into law by Governor Schaefer reflects the principle of institutional autonomy. For example, Senate bill 459 describes the Presidents as chief executive officers of their institutions and holds them accountable to the University of Maryland Board of Regents for the effective management of their institutions.

With responsibility, however, comes accountability. Senate Bill 459 mandates that the Maryland Higher Education Commission establish accountability plans for each institution based on that institution's mission statement.

In the administrative area, accountability can be demonstrated in two ways. First, quantitative indicators can be developed to measure the number of requests for services or work orders processed by a unit. Second, qualitative indicators can be used to demonstrate reductions in the time required to complete specific activities and the quality of the products or services provided. For example, the campus through the University has been granted greater control over building design and construction. This delegation of responsibility should result in two measurable outcomes. First, the time required to complete projects should be reduced and costly delays or the number of change orders should be kept to a minimum.

Second, the campus will be able to insure that the quality of construction meets its expectations and requirements. According to the NACUBO publication *Incentives and Disincentives to Effective Management* (1984), a similar delegation of authority to the University of Kentucky resulted in a reduction in the time required to select an architect, review bids, and award a contract from 15 to 7 months. In addition, during the period from July 1982 to March 1983,

the university awarded $7 million in contracts with cost savings of approximately $445 thousand, due primarily to shortened completion periods.

Accountability measures in the area of administration will focus on increasing both the efficiency and the responsiveness to the users of administrative services. Data to support some of these measures are currently being collected by the Vice President for Administrative Affairs and will form the basis for the administrative affairs portion of the institution's accountability plan.

Chapter 10: Community

To be attached to the subdivision, to love the little platoon we belong to in society, is the first principle (the germ as it were) of public affections. It is the first link in the series by which we proceed towards as love to our country, and to mankind.

–Edmund Burke

Opinions about the quality of campus life, even about what constitutes that quality, vary greatly. While faculty concerns focus largely on academic matters (research support, classroom and office facilities, tenure and promotion policies), student interests range more widely (the quality of teaching and advising, but also dormitory and dining facilities, career placement and extracurricular activities). Classified employee concerns relate primarily to aspects of the work environment (salary scales, opportunities for advancement, job status, and relations with superiors). In light of this diversity, no single summary account of the quality of campus life can be expected to reflect adequately everyone's concerns.

–*Middle States Self-Study*, 1985-86

10.1 Goals and Objectives

A great university is above all a great intellectual community. This enhancement effort provides the campus with a significant chance to improve the institutional culture at College Park and improve our sense of shared community, on and off-campus. Among the key goals of a strengthened sense of community at College Park are:

- **Emphasizing Intellectual Community:** College Park will seek to strengthen its sense of intellectual community among students, faculty and staff.
- **Nurturing Diversity:** College Park will strengthen its support structures, recruitment, and retention of faculty, students and staff of both sexes and of many ethnic and cultural backgrounds and affiliations, ensuring that the campus is a place for all Marylanders.
- **Becoming the State of Maryland's Campus:** College Park will strengthen its external cultural programs and cultural outreach projects throughout the state, and will seek to strengthen its ongoing cultural and educational programs and opportunities for all of its constituencies.
- **Strengthening Our Institutional Identity:** College park will encourage a greater sense of institutional identity by enhancing its communications with faculty, staff and students. The campus will sponsor activities designed to encourage respect and participation in campus traditions and rituals, and new on-campus lecture series, conferences,

and attention at other academic programs designed to improve intellectual community, increase collegiality and build pride in the University.

In the short time since the campus completed the *Middle States Self-Study*, College Park has moved ahead steadily to implement many of the recommendations outlined in the report. A campus faculty/staff weekly newsletter, *Outlook*, now in its third year, is improving communication among the campus community in many ways. An emerging electronic mail system is beginning to connect various segments of the community nearly instantaneously via a campus-wide computing network. A newly-constructed garage is easing some of the strain of campus parking. A child care center opened its doors to the children of students, staff and faculty this fall. The campus has responded to many of the concerns of its community and is working hard to make College Park an attractive, thoughtful and caring campus.

As College Park has begun to enhance its programs and attract a greater number of outstanding faculty and students, the community has come to have increasingly higher expectations about itself–about the ambience and environment which all who work and study at College Park help to create.

The Community Development Project report prepared in 1985 by the College Park Student Affairs Program Staff Coordinating Committee, defined its objectives in this way: "We hope to increase the feelings of investment, commitment, and ownership on the part of each student, faculty member, and staff member." The report defined community as "a sense of commitment among individuals reflecting common purposes and values resulting in collective action and shared experiences." (p. 3) Creating that sense of commitment will be the principal goal influencing all other initiatives discussed in this chapter.

Emphasizing a Sense of Intellectual Community and the Life of the Mind. One of the most significant actions that the campus could take to improve faculty and staff community would be to give that community a symbolic home, a faculty/staff club. In July, 1988, a faculty/staff club task force issued a report to President Kirwan, and concluded: "A conveniently located, well-designed and well-appointed club or activities center would greatly improve the quality of campus academic and social life." Using this report as a springboard, the campus should now begin to explore seriously construction and financing alternatives.

In tandem with planning for the faculty/staff club, the campus should move aggressively to develop another important community-building facility, the Performing Arts Instructional Center.

Together, these facilities would help to end the intellectual isolation that too often occurs at College Park. When constructed, they will provide rich opportunities to foster the social, cultural and intellectual interaction that are the mark of a great university.

Responding to Diverse Constituencies. At a recent meeting of campus administrators, a wide array of ideas was suggested to help enhance the campus. Among the highest priorities was the development of a visitors' center and improved visitors' services–both vital to College Park's ability to make strangers feel welcome.

As strangers, some visitors may naturally feel unfamiliar or disoriented. When members of the permanent College Park community share such feelings there ought to be cause for real concern. Some graduate

It must be noted, on the other hand, that "in spite of the many challenges facing the campus, the overall degree of satisfaction appears to be very high, especially among faculty with their own teaching duties and departments, and among students with the quality of their professors, and the variety of resources and extracurricular activities."

Some of the negative sentiments expressed above may be reversed when faculty, staff, students, alumni, visitors and benefactors of the university have more satisfactory facilities in which they can come together in various ways as a community. At present the status of plans for future facilities is as follows:

Faculty/Staff Club. As requested in "The Interim Report of the Faculty/Staff Planning Committee in July, 1988, experts in facilities planning, finance, marketing and construction will be consulted with the aim of moving forward with planning of this facility.

Resources required: Estimated $2.6 million capital cost. This initiative is listed as a priority in the FY 90 budget request, and the campus has pledged a commitment of $150,000 per year of non-State campus funds for partial assistance when the facility is built, with the remaining $330,000 in annual construction repayments to be met through members dues, gifts, rentals and profits on facility services.

Performing Arts Instructional Center. At present, the campus relies on the recently renovated Tawes Recital Hall, and the Tawes Theatre, and Tawes Fine Arts Building for performances and instruction in the performing arts. Plans for this Center have been incorporated within the College Park five-year capital budget.

Combined Visitors' / Alumni Center. At present, the campus has few facilities, programs and services, printed maps, guides, or paid student greeters to orient visitors and to make them feel welcome, although the Admissions Office and the Stamp Student Union do provide some forms of information, including the Union's new computerized information system, AIM (Access to Information about Maryland). Despite these useful endeavors, the campus remains a difficult place for visitors to navigate. A new facility dedicated to making visitors and alumni feel welcome should be a campus priority, if College Park is serious about its outreach, recruitment, service and development activities.

At present, a plan to redesign the North Gate of the campus to accommodate a formal but modest visitors' center has been approved, and when completed this facility will offer a needed beginning. In addition, Campus Recreation Services has proposed that space in the Armory Lobby be made available for a visitors' information window. Wherever it is located, a Visitor's Center or Centers should be a place where newcomers could be welcomed, obtain maps and directions, arrange for parking and make on-campus telephone calls.

Renovating or Expanding Stamp Student Union. The Student Union, a 250,000 square foot facility, is visited by 22,000 students, faculty, staff and visitors daily. The facility serves as College Park's "living room", a place for recreation, amusement, nutrition, information, enlightenment, sociability, and meeting many of the everyday needs of campus life. A report, "The Adele H. Stamp Student Union into the 21st Century," makes an eloquent case for enhancing or renovating this campus nerve center.

Expanding communication and community building programs to create stronger institutional identity internally and externally. A variety of

celebrations and ceremonies to honor faculty and staff have been created during the past few years. With surprising speed, many of these have become important traditions and rituals for a campus that has been sparing in sponsoring such events. Among the most important are:

- The Faculty/Associate Staff Convocation;
- The Women's Commission Award of Outstanding Woman of the Year
- college-based commencement ceremonies; and
- the new Student Convocation.

The cost of these events is modest in comparison to the benefits obtained, among them, an important sense of shared community. The Ad Hoc Committee on Campus Ceremonies' report recommends a variety of other campus-wide celebrations, receptions, awards, publications and recognition ceremonies that also serve to create closer bonds between members of the campus community and the institution. The Committee's recommendations include:

- promoting publications such as the faculty/staff weekly newsletter, *Outlook;*
- conducting a series of campus dialogues with the President. These forums will begin during this academic year;
- receptions, dinners, ceremonies and programs to commemorate awards for distinguished classified staff service, student honors, and important life-cycle events such as the awarding of faculty emeritus status.

10.3 Policy Requirements

In order to develop the kind of community desired by faculty, students and staff, the campus will have to undertake a number of policy and resource initiatives.

Speed Up the Design and Construction of New Facilities. Plans should be accelerated for the construction of facilities to provide Performing Arts Center cultural outreach; orientation and help services to visitors and alumni, collegial gathering places and dining facilities for faculty, staff, alumni, and donors; recreational centers to meet the academic and recreational needs of the campus community; and a renovated Student Union.

Place a Higher Priority on Serving All of College Park's Constituents

- By creating the position of facilitator / ombudsman and appointing a permanent committee or office that responds to quality of life issues, much can be done to enhance the environment for the entire community, including women, minorities, classified staff, and the general public. More efficient, service-oriented offices could be one outcome of this office, resulting in happier, more productive employees;
- By establishing appropriate ceremonies and occasions to honor our accomplishments together we will build bridges between different campus subgroups, increase the general awareness of how different organizations contribute to the life of the campus, and foster a greater sense of respect and community throughout the campus.

Create more vehicles to improve horizontal and vertical communication. These might include new communications programs such as an alumni magazine; a leisure calendar; a unified calendar of events; programming for the Prince Georges County UMCP Flagship TV Channel; a news and information video program distributed internally

to the campus; more forums, special events and alumni centers, all of which are aimed at reaching a broad and diverse set of audiences and could, if successful, also result in greater support for the current $100 million fund-raising Campaign for College Park.

10.4 Proposed Initiatives

There are occasions in the life of an institution when a momentum sets in that should be cultivated and encouraged. There now exists a special sense of optimism and a shared vision of what College Park could become in the future, if the campus were only provided with the appropriate resources today.

Now is the time to support initiatives that will send the campus a clear message of caring--caring about all of our constituencies, caring enough to share new enhancement resources with groups such as women, minorities, graduate students, and others who have not previously enjoyed special campus support, caring enough to send a clear message to the entire campus that we will improve the work environment, work to raise salaries of those who are paid the least, and offer recognition to all employees who exemplify dedication and outstanding achievement on the job.

New initiatives beyond those established in FY'90 include:

Enhance Programs that Create a Greater Sense of Intellectual Community.

- Move into Phase II of planning for a Faculty/Staff Club by undertaking a thorough marketing survey and financial analysis, and by choosing an appropriate site;
- Initiate a plan to create a Visitors'/Alumni Center, and continue planning for a Performing Arts Center; and
- Establish an on-going faculty/staff orientation program, and create publications that support this education and familiarization of new employees with the College Park community.

Accelerate opportunities to nurture diversity and support interests of varied campus constituencies.

- Evaluate alternative means of renovating the Student Union, and locate other sites to accommodate commuters, international students, foreign language students, honors students, minorities,. and women. Resources to be determined.
- Begin a thorough review of the graduate student environment, including housing, campus facilities, social and cultural activities. Resources to be determined.
- Fund Greer Report recommendations for improved environment for women. Resource allocation, currently funded at $360,000 for three years.
- Create a position of facilitator/ombudsman to encourage individual contributions to campus life; create a Quality of Life task force to oversee improvements in the environment; support the concept of "Service without Turnaway" by creating training and communication programs to foster the notion of service. Resources to be determined.

Create Mechanisms to Celebrate the Institution's Achievements.

- Implement the recommendations of the Committee on Campus Ceremonies: create broader campus-wide convocation, hold a campus-wide picnic for all employees, celebrate an undergraduate Honors banquet, encourage the President to hold monthly receptions, establish procedures for recog-

nizing faculty and staff accomplishments, create awards for classified staff similar to those presented to associate staff; provide publications recording key annual faculty, staff and student awards and honors. Resources required: $70,000-100,000.

- Enhance funding for development, alumni, public relations, publications and special events to support the needs of the Campaign for College Park, and to increase communications with internal and external audiences in general. Create a new alumni magazine, Leisure Calendar, comprehensive calendar of events program, video news and feature programming for the College Park Flagship TV Channel, and other communication vehicles. (See Chapter 4, Service, for minimum budgets for these activities, apart from funding an alumni magazine, which is estimated to cost $500,000 annually.)

Improve the Quality of the Campus Environment.

- Provide more funding to Police and Walking Patrol activities and related educational materials. Resource allocation, $217,000 in FY '90.

- Expand the campus beautification campaign and support a building identification program. Study ways to reduce costs and speed up design, construction, renovation and maintenance services. Create more common areas, interior lounge spaces, coffee houses, and study spaces. Improve exterior lighting, and make building entryways more attractive.

- Expand campus shuttle-bus services and examine ways to reduce the logistical and personal difficulties in existing transportation and parking policies and facilities.

Chapter 11: Collegiate Initiatives

not included with this draft

to be written on the basis of collegiate submissions and APAC reviews

Chapter 12: Resource Summary and Implementation Plan

12.1 Introduction

This chapter identifies the resource requirements associated with the various initiatives of the *College Park Enhancement Plan*. There are several key parameters associated with any resource allocation plan. First, various initiatives must be ranked in priority order. Second, the source or sources of revenue must be identified. Third, the timing and correlation between the need for resources and resource availability must be determined.

The intent of this chapter is to provide the Enhancement Planning Steering Committee and the campus with a framework for making resource allocation decisions. In this regard, the various sources of revenue are identified and worksheets are provided to: (a) rank the various initiatives in priority order; (b) identify both need for and timing of resource requirements; and (c) the source or sources of funding for each initiative.

12.2 Sources and Use of Funds

The operations of the University of Maryland at College Park are funded from a variety of revenue sources. Major sources of revenue include:

- State General Funds
- Tuition and Mandatory Fees
- Private Support
- Indirect Cost Recoveries
- Grants and Contracts
- Other Funding Sources

Exhibit 12.1 identifies Total FY 1988 Current Funds for the University of Maryland at College Park by both revenue sources of funds and expenditures by program. Exhibit 12.2 provides an analysis of Current Fund Revenues for the period FY 1985 through FY 1988. Exhibit 12.3 provides program expenditures for the period FY 1985 through FY 1988. Brief descriptions of the various revenue sources are provided below.

State General Funds. State General Funds are obtained through non-dedicated state revenues. The primary sources of general funds are the individual income tax and the retail sales tax. For College Park, General Funds constitute the majority of funding for the State-Supported Programs operating budget (70.4 percent of the FY 1990 request). In SB 459 the 1988 Legislature provided for minimum 1990 General Funds of $217.2 million in the College Park operating budget. This funding level represents an increase of 13.1 percent above the FY 89 budget. These funds will be used to support: (1) salary and operating inflation increments to maintain current services; (2) workload requirements; (3) offsetting revenue for lost tuition related to the planned Undergraduate Enrollment Reduction; and (4) continuing and new initiatives.

Tuition and Mandatory Fees.

Tuition income is derived from charges paid by enrolled students. Tuition revenue is used to support those activities not fully supported by the state General Fund revenues. Tuition revenue is the second largest source of support in the College Park

annual operating budget (22.4 percent of the FY 1990 Request).

In addition to providing base support, tuition revenue may also be used to fund campus priorities. For example the 2 percent of the overall 9 percent FY 1989 tuition increase was dedicated to computer workstations. In addition, a portion of the 8 percent FY 90 tuition increase will be dedicated to provide enhancement funding beyond the mandated General Funds set forth in SB 459.

Mandatory Fees are paid by enrolled students for activities and services which are: (1) available to the general student population; and (2) auxiliary in nature and "self-supporting" (funded outside of state General Funds and tuition). At College Park, specific mandatory fees provide funding for: (a) health services; (b) the intercollegiate athletics program; (c) shuttle bus services; (d) the student union and recreation activities; (e) student activities; and (f) auxiliary facilities. Increases in these fees are tied to: (1) salary increments and operating inflation; (2) in FY 89 and FY 90 offsets to lost income related to the Undergraduate Enrollment Reduction; (3) special program operating needs; and (4) provision for adequate non-state facilities renewal.

Private Support. This classification includes funds received as gifts from private outside sources, both individual and corporate. For College Park these funds can be recorded and utilized directly within current funds or received and spent indirectly through the UM Foundation. Private support is achieved through campaign and fund-raising efforts and may be utilized for general institutional priorities or more specific restricted purposes, both operating and capital in nature.

Indirect Cost Recovery. This category refers to funds recovered on externally funded grants and contracts. These funds are used to reimburse College Park for part of the support and infrastructure costs required to conduct sponsored research. In recent years, through the Designated Research Initiative Fund (DRIF), College Park has been able to "reserve" approximately 50 percent of the recovery from external sponsors for research initiatives. These funds are used to maintain the campus' competitive position in securing future research grants and contracts.

The focus of the DRIF program has been primarily on nonrecurring special research enhancements such as equipment, computers, matching funds, special short term support for new research, renovations, and special construction. DRIF funds may not be used to support continuing commitments to line item positions and projects. In addition to the DRIF program, a portion of current indirect cost recovery income is budgeted by the state as a component of base support in the State-Supported operating budget. Indirect Cost Recoveries also provide partial funding for the facilities renewal program for state facilities. Current requirements for the use of excess indirect cost recovery income above budget stipulate a 50/50 split between the DRIF and Facilities Renewal Programs.

Grants and Contracts. Grants and contracts constitute the common mechanism by which funds are made available to institutions such as College Park by sponsoring agencies, usually for the performance of specific activities. The sponsoring agencies can be from the federal, state, local government, or private sectors. At College Park the majority of funding is provided by federal agencies.

Other Funding Sources. Included in this grouping are all other major sources of revenues, some of which may be the product of financing techniques. Debt or bond financing provides resources through

the sale of bonds which are paid back over a period of time. Such financing is secured by collateral such as fee and revenue income in the self-supported and auxiliary enterprises areas. At College Park a substantial continuing building and renovation program for non-state facilities has been financed by this method.

To date, the issuance of bonds for academic and state-supported facilities has been limited by the prohibition against the use of tuition revenue as a source of repayment. Capital projects in the state-supported area are either funded through State General Construction Loans (GCL) or as pay-go projects or supplemental appropriations in the State Operating Budget. Recently, however, Certificates of Participation were used by the campus as a method of financing the construction of the A.V. Williams Building.

The University Funded Construction Program is the primary mechanism for funding capital improvements to non-state facilities. One source of revenue for this program is student fees, especially the Auxiliary Facilities Fee. Other sources include revenues from sales and services of auxiliary activities.

Other campus revenue sources include endowment income and investment income. Endowment funds are those "gifts" which are given to an institution with the stipulation that the principal cannot be depleted (expended). Endowment income, however, is available for use. This income source can be unrestricted (and available for institutional priorities) or restricted by the donor (such as scholarships or endowed chairs). Investment Interest income is earned through investment return on cash balances. The State of Maryland invests University System balances and returns income through the University to the segments, including College Park. C.

Reallocation and the Institutional Priority Fund. In addition to the traditional sources of revenues highlighted in the preceding section, campus initiatives can also be funded by reallocating resources from existing programs. Such reallocation is usually resisted until it is mandated by: (1) substantial and recurring revenue shortfalls; (2) directives from state agencies; (3) actions of the governing board or Board of Regents; and (4) institutional or campus management. In order for reallocation to be truly effective, it requires vision, leadership, and commitment by senior management at both the central and collegiate level.

Two institutions that have been able to successfully implement a program of reallocation are the University of Michigan at Ann Arbor and Stanford University. The mechanism used by the University of Michigan to reallocate resources involved the establishment of an institutional priority fund. Stanford University has used both reallocations and institutional initiative to address what the campus refers to as the "2% Problem."

The Institutional Priority Fund. When the priority fund was established in December 1977, the University of Michigan declared:

> *It is vital that the university maintain its ability, even through periods of stable real-dollar budgets, to adapt to (the) changing interests (of students and faculty, the development of new areas of knowledge, and the interests of society), as well as to assist existing programs which are, in view of our priorities, relatively underfunded. Budgetary flexibility is an essential ingredient of the ability to respond to both of these challenges.*

Under terms of the fund, which was established for three years subject to reevaluation, each unit's base general fund budget was reduced by 1% of the previous

year's budget. In effect, this was an annual tax on base budgets.

The University anticipated savings of approximately $1 million, $1.3 million, and $1.5 million in the three-year period. This money would then be reallocated into base budgets of selected units, depending on university priorities.

There were two exceptions to this general plan. First, staff benefits, purchased utilities, and mandatory transfers were not included in reductions. Second, research and instruction budgets of academic units were reduced at a more gradual pace over a three-year period. Starting with 1978-79, these budgets were reduced each year by .333%, .666%, and 1%, respectively.

In February 1982, the vice president for academic affairs issued new instructions for a five-year reallocation plan to free $20 million, or about 7.5% of the 1981-82 general fund budget, for new or increased funding of targeted activities. There was to be no net reduction in the university's general fund budget base as a result of this program. The goal was to reallocate, on average, at least $4 million per year, which was approximately 2% of the academic and administrative and support units' budget; reductions were to occur at the earliest reasonable time in the five-year cycle.

The vice president identified six programmatic (rather than organizational) areas as beneficiaries of reallocation; (1) salaries for faculty and staff; (2) research, including generation of better incentives for research; (3) undergraduate teaching and incentives for better teaching; (4) improved level of merit-based support for graduate students; (5) funds to regenerate budgetary capacity to respond to new intellectual developments and social needs, and to provide for selected program growth and development; and (6) improved level of support for instructional and research equipment and renovation of physical plant.

With funds returned to the central administration under this plan, the university was able to transfer money to priority areas, using normal budgetary decision-making and governance procedures. Units were required to submit requests for support in high-priority areas; the vice president for academic affairs, with assistance from the budget priorities committee and committee on budget administration, then redistributed funds to budgetary units. Funds are not reallocated across-the-board, rather they are distributed differentially based on quality, merit, need, and new intellectual development.

This reallocation process is based on two categories of reductions: (1) large reductions in selective program areas or closures; and (2) variable-shared reductions (VSR) in all other units. The first approach applies to reductions that exceed 20 to 30% of a unit's budget over the five-year period. Variable-shared reductions will occur in all units that are not in the first category. For instructional functions of most schools and colleges, VSRs range from 0-10%, averaging 5% over the period. For administrative and support units, the VSRs range from 5 to 15%, averaging over 10% during the period. The reallocation plan therefore continued the trend of shifting resources from administrative and support functions to instruction and research.

12.3 Stanford University and the 2% Problem. A fundamental problem at Stanford University is what the campus refers to as the "2 percent problem." According to information contained in Stanford University's Annual report (1985), "Every year a gap of about this size shows up between available income and the expenditures needed to do all we want to be doing in support of the University's mission."

The causes of the problem are complex:

societal, economic, and demographic forces that impact on campus resources; an economic situation that puts Stanford at a disadvantage in the labor market; and the accelerating cost of new increments of knowledge. Overarching all these factors is Stanford's commitment to what the late Fred Terman, Provost at Stanford and "the father of Silicon Valley," called "raising steeples of excellence above the plane of average academic performance."

How is Stanford responding to the "2 percent problem"? There are two ways of closing such a gap--to spend less, or to earn more. Stanford is working on ways to do both. Budget cuts have been a painfully familiar part of the University's annual budget preparation cycle for the past fifteen years. The budget process has provided a framework for assessing institutional priorities, for analyzing the needs of the ongoing teaching and research efforts and their support systems, for identifying resources to support important new programs, and for cutting expenditures for activities no longer considered essential. While it continues to be part of the annual cycle, budget cutting has become increasingly difficult in recent years, since the "easy" targets for trimming have long since been identified and cut.

New information technologies are being harnessed to achieve productivity improvement in administrative and support services. New computer systems, however, have a price. The most obvious cost is monetary; about $2 million per year is currently going to new administrative systems development.

A cost less easy to quantify is the effort that was needed to let go of old, familiar ways of doing business and make a leap of the imagination into an environment where some administrative functions cease to be necessary, and new computer skills need to be learned. But significant budget reductions are the expected long-term payoff. Discussion continues on what is a realistic reduction figure; a value between 1.0 and 1.5 percent of the applicable budget base has been suggested by William F. Massy, vice president for business and finance.

One of the most important of the new systems is the Stanford University Financial Information Network (SUFIN). Begun in 1983, SUFIN is a major revision of the University accounting system, using the database management capabilities of the Stanford-developed Stanford Public Information REtrieval System (SPIRES). Its design allows administrative offices to share common data. Productivity gains are expected from capturing and editing data at the original point of entry, usually in a feeder system, then electronically forwarding it to the accounting system.

Shared data on purchasing transactions is already saving time and effort for administrators using the Stanford Network for Accounting and Procurement (SNAP), an example of a system that feeds into SUFIN. Savings from this system will come from staff reductions in positions that transcribe data and now duplicate effort, better volume discounts and price agreements negotiated from better management information, and more achievable early payment discounts from a more rapid payment process.

The drive for knowledge growth is deeply rooted in the values of Stanford University. The campus knows that it cannot afford to hold to a steady-state budget. A university that does not develop new areas of knowledge and deepen our understanding of old ones will eventually fail to attract and retain first-class faculty and students, and thus recede from the cutting edge of teaching and research.

12.4 Resource Requirements Worksheets

To assist in the identification of resource requirements and fund sources, three worksheets have been developed. Worksheet 1 should be used to identify priorities and fund sources within two major components of the enhancement plan: (a) base budget deficiencies and (b) new and continuing initiatives.

Worksheet 2A should be used to create an integrated priority list and funding requirements over a five-year period (FY 1991-1995). In developing this integrated list, the campus may decide to rank certain base budget initiatives ahead of new or continuing initiatives.

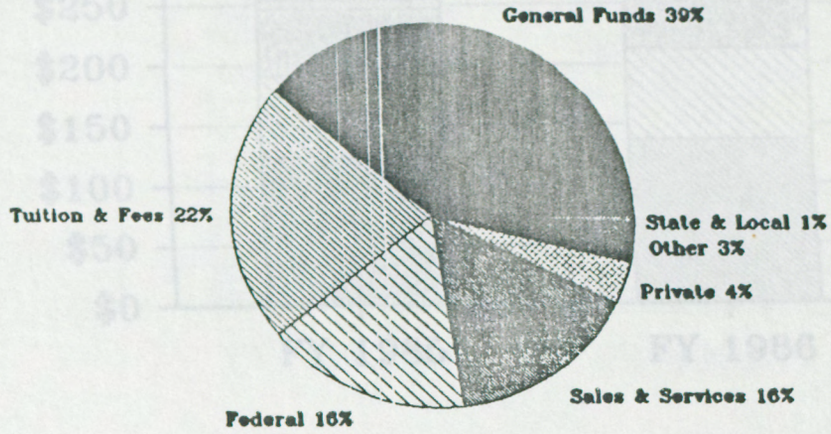
Worksheet 2B should be used to indicate the source or sources of funding for each priority identified on

Worksheet 3. Worksheets 3A and B array institutional priorities in an order that reflects the topical ordering of the enhancement plan.

Figure 12.1

Exhibit 1
The University of Maryland
College Park Campus
FY 1988 Current Funds

Current Funds Revenues by Source



Current Funds Expenditures by Program

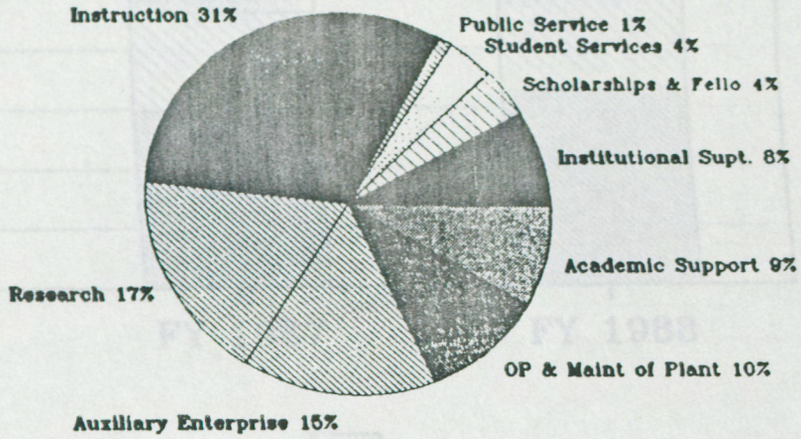


Figure 12.2

Exhibit 2
The University of Maryland
College Park Campus
FY 1985 – 1988 Current Fund Sources by Program

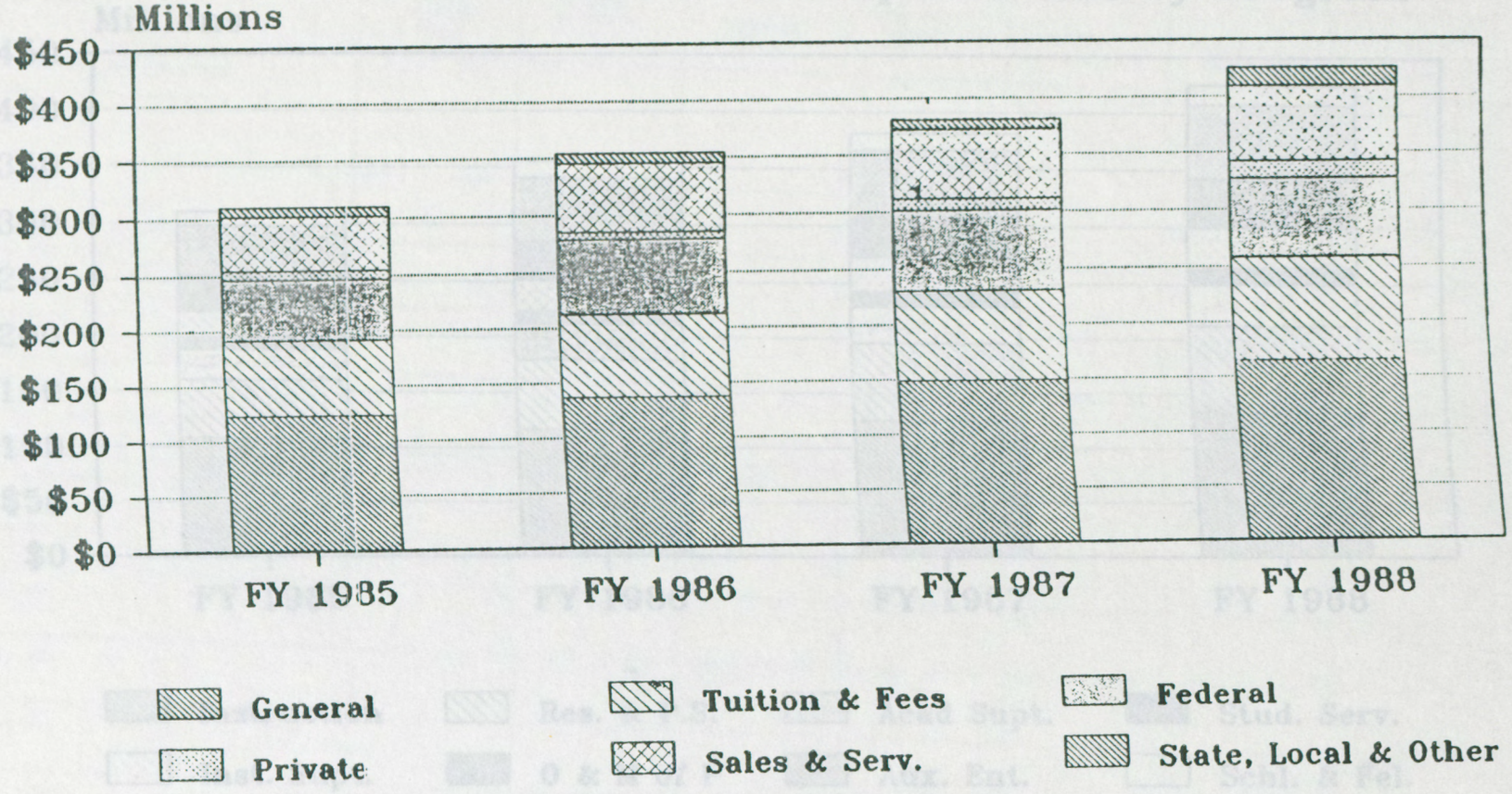


Figure 12.3

Exhibit 3
The University of Maryland
College Park Campus

FY 1985 -- 1988 Current Fund Expenditures by Program

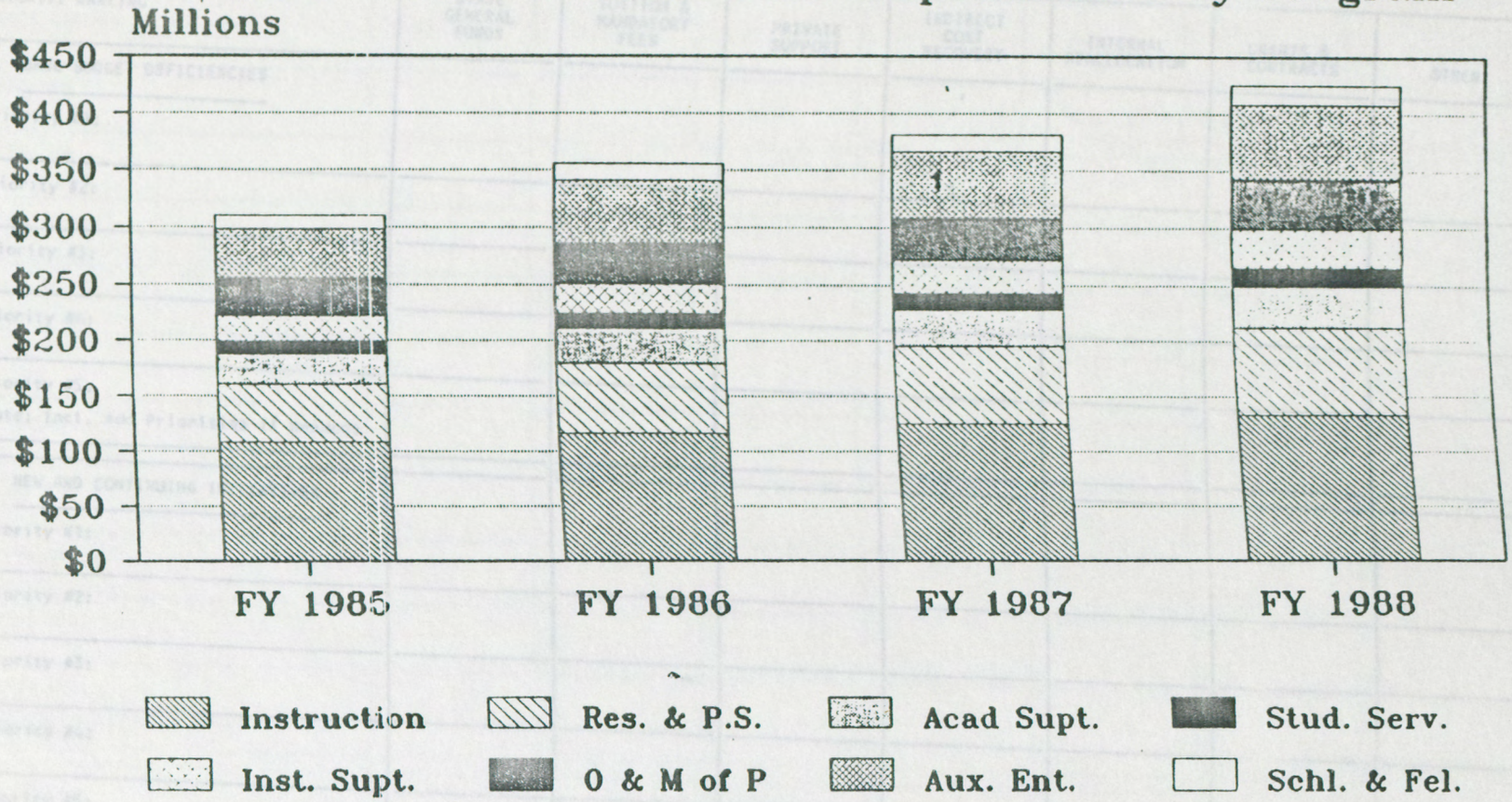


Figure 12.4

WORKSHEET 1
COLLEGE PARK ENHANCEMENT PLAN
PRIORITY RANKING OF INITIATIVES
TO ADDRESS: (A) BASE BUDGET DEFICIENCIES; AND (B) NEW AND CONTINUING INITIATIVES

PRIORITY RANKING	SOURCE OF FUNDS							
	STATE GENERAL FUNDS	TUITION & MANDATORY FEES	PRIVATE SUPPORT	INDIRECT COST RECOVERY	INTERNAL REALLOCATION	GRANTS & CONTRACTS	OTHER	TOTAL
A. BASE BUDGET DEFICIENCIES								
Priority #1:								
Priority #2:								
Priority #3:								
Priority #4:								
Priority #5:								
(Note: Incl. Add Priorities If Needed)								
B. NEW AND CONTINUING INITIATIVES								
Priority #1:								
Priority #2:								
Priority #3:								
Priority #4:								
Priority #5:								
(Note: Incl. Add Priorities If Needed)								
GRAND TOTAL								

Figure 12.5

WORKSHEET 2A
COLLEGE PARK ENHANCEMENT PLAN
AN INTEGRATED PRIORITY LIST FY 1991 - 1995

PRIORITY RANKING	TOTAL FISCAL YEARS - 1991 - 1995					
	FY 1991	FY 1992	FY 1993	FY 1994	FY 1995	TOTAL
Priority #1:						
Priority #2:						
Priority #3:						
Priority #4:						
Priority #5:						
Priority #6:						
Priority #7:						
Priority #8:						
Priority #9:						
Priority #10: (Note: Incl. Add Priorities If Needed)						
GRAND TOTAL						

Figure 12.6

WORKSHEET 2B
COLLEGE PARK ENHANCEMENT PLAN
AN INTEGRATED PRIORITY LIST
BY FUND SOURCE

PRIORITY RANKING	SOURCE OF FUNDS							
	STATE GENERAL FUNDS	TUITION & MANDATORY FEES	PRIVATE SUPPORT	INDIRECT COST RECOVERY	INTERNAL REALLOCATION	GRANTS & CONTRACTS	OTHER	TOTAL
Priority #1:								
Priority #2:								
Priority #3:								
Priority #4:								
Priority #5:								
Priority #6:								
Priority #7:								
Priority #8:								
Priority #9:								
Priority #10: (Note: Incl. Add Priorities If Needed)								
GRAND TOTAL								

RESOURCE REQUIREMENTS ASSOCIATED WITH THE COLLEGE PARK ENHANCEMENT PLAN FOR THE PERIODS FY 1991 - 1995 WORKSHEET #3A

Figure 12.7

MAJOR INITIATIVES	TOTAL FISCAL YEARS - 1991 - 1995					
	FY 1991	FY 1992	FY 1993	FY 1994	FY 1995	TOTAL
A. SUPPORTING COLLEGE PARK'S MISSION						
1. Undergraduate Education						
(a.) Strengthening the Undergraduate Curriculum (b.) Improving Admissions and Advising (c.) Attracting Maryland's Best Undergraduates						
Subtotal: Undergraduate Education						
2. Graduate Education and Research						
(a.) Enhancing Departmental Operating Support (b.) Upgrading Research Facilities (c.) Attracting The Nation's Best Graduate Students (d.) Faculty Recruitment and Retention						
Subtotal: Graduate Education and Research						
3. Service						
(a.) Economic Development and Public Service (b.) Development / Public Relations (c.) Enhancing College Park As A Culture Resource For The State (d.) Educational Master Camps						
Subtotal: Service						
SUBTOTAL: SUPPORTING COLLEGE PARK'S MISSION						
B. ENHANCING COLLEGE PARK'S ENVIRONMENT						
1. Facilities						
(a.) Providing Modern Facilities (b.) Facilities Renewal (c.) Developing Facilities To Foster A Sense Of Community (d.) Auxiliary Facilities						
Subtotal: Facilities						
2. Computing and Libraries						
(a.) Library Collections Development and Management (b.) Library Information Technology (c.) Computer Workstations (d.) Distributed Computing Facilities (e.) Super Computers (f.) Administration Computing						
Subtotal: Computing and Libraries						
3. Administration and Administrative Support						
(a.) Implementing S.B. 459 (b.) Streamline Administrative Procedures (c.) Enhance Support Staff						
Subtotal: Administration and Administrative Support						
4. Student Life						
(a.) Improving Access To Services (b.) Student Participation and Involvement (c.) Commuting Students (d.) Develop Leadership and Service Programs (e.) Improving The Residential Experience						
Subtotal: Student Life						
5. College Park As A Community						
(a.) Emphasizing The Intellectual Community (b.) Nurturing Diversity (c.) The State Of Maryland's Campus (d.) Strengthening Institutional Identity						
Subtotal: College Park As A Community						
SUBTOTAL: ENHANCING COLLEGE PARK'S ENVIRONMENT						
GRAND TOTAL FY 1991 - 1995						

Figure 12.8

RESOURCE REQUIREMENTS ASSOCIATED WITH THE COLLEGE PARK ENHANCEMENT PLAN FOR THE PERIODS FY 1991 - 1995 WORKSHEET #3B

MAJOR INITIATIVES	FISCAL YEAR - 1991							
	STATE GENERAL FUNDS	TUITION & MANDATORY FEES	PRIVATE SUPPORT	INDIRECT COST RECOVERY	INTERNAL REALLOCATION	GRANTS & CONTRACTS	OTHER	TOTAL
A. SUPPORTING COLLEGE PARK'S MISSION								
1. Undergraduate Education								
(a.) Strengthening the Undergraduate Curriculum								
(b.) Improving Admissions and Advising								
(c.) Attracting Maryland's Best Undergraduates								
Subtotal: Undergraduate Education								
2. Graduate Education and Research								
(a.) Enhancing Departmental Operating Support								
(b.) Upgrading Research Facilities								
(c.) Attracting The Nation's Best Graduate Students								
(d.) Faculty Recruitment and Retention								
Subtotal: Graduate Education and Research								
3. Service								
(a.) Economic Development and Public Service								
(b.) Development / Public Relations								
(c.) Enhancing College Park As A Culture Resource For The State								
(d.) Educational Master Camps								
Subtotal: Service								
SUBTOTAL: SUPPORTING COLLEGE PARK'S MISSION								
B. ENHANCING COLLEGE PARK'S ENVIRONMENT								
1. Facilities								
(a.) Providing Modern Facilities								
(b.) Facilities Renewal								
(c.) Developing Facilities To Foster A Sense Of Community								
(d.) Auxiliary Facilities								
Subtotal: Facilities								
2. Computing and Libraries								
(a.) Library Collections Development and Management								
(b.) Library Information Technology								
(c.) Computer Workstations								
(d.) Distributed Computing Facilities								
(e.) Super Computers								
(f.) Administration Computing								
Subtotal: Computing and Libraries								

Figure 12.9

RESOURCE REQUIREMENTS ASSOCIATED WITH THE COLLEGE PARK ENHANCEMENT PLAN FOR THE PERIODS FY 1991 - 1995 WORKSHEET #3B

MAJOR INITIATIVES	FISCAL YEAR - 1991							
	STATE GENERAL FUNDS	TUITION & MANDATORY FEES	PRIVATE SUPPORT	INDIRECT COST RECOVERY	INTERNAL REALLOCATION	GRANTS & CONTRACTS	OTHER	TOTAL
3. Administration and Administrative Support								
(a.) Implementing S.B. 459 (b.) Streamline Administrative Procedures (c.) Enhance Support Staff								
Subtotal: Administration and Administrative Support								
4. Student Life								
(a.) Improving Access To Services (b.) Student Participation and Involvement (c.) Commuting Students (d.) Develop Leadership and Service Programs (e.) Improving The Residential Experience								
Subtotal: Student Life								
5. College Park As A Community								
(a.) Emphasizing The Intellectual Community (b.) Nurturing Diversity (c.) The State Of Maryland's Campus (d.) Strengthening Institutional Identity								
Subtotal: College Park As A Community								
SUBTOTAL: ENHANCING COLLEGE PARK'S ENVIRONMENT								
GRAND TOTAL FY 1991								

Figure 12.10

RESOURCE REQUIREMENTS ASSOCIATED WITH THE COLLEGE PARK ENHANCEMENT PLAN FOR THE PERIODS FY 1991 - 1995 WORKSHEET #3B

MAJOR INITIATIVES	FISCAL YEAR - 1992							
	STATE GENERAL FUNDS	TUITION & MANDATORY FEES	PRIVATE SUPPORT	INDIRECT COST RECOVERY	INTERNAL REALLOCATION	GRANTS & CONTRACTS	OTHER	TOTAL
A. SUPPORTING COLLEGE PARK'S MISSION								
1. Undergraduate Education								
(a.) Strengthening the Undergraduate Curriculum								
(b.) Improving Admissions and Advising								
(c.) Attracting Maryland's Best Undergraduates								
Subtotal: Undergraduate Education								
2. Graduate Education and Research								
(a.) Enhancing Departmental Operating Support								
(b.) Upgrading Research Facilities								
(c.) Attracting The Nation's Best Graduate Students								
(d.) Faculty Recruitment and Retention								
Subtotal: Graduate Education and Research								
3. Service								
(a.) Economic Development and Public Service								
(b.) Development / Public Relations								
(c.) Enhancing College Park As A Culture Resource For The State								
(d.) Educational Master Camps								
Subtotal: Service								
SUBTOTAL: SUPPORTING COLLEGE PARK'S MISSION								
B. ENHANCING COLLEGE PARK'S ENVIRONMENT								
1. Facilities								
(a.) Providing Modern Facilities								
(b.) Facilities Renewal								
(c.) Developing Facilities To Foster A Sense Of Community								
(d.) Auxiliary Facilities								
Subtotal: Facilities								
2. Computing and Libraries								
(a.) Library Collections Development and Management								
(b.) Library Information Technology								
(c.) Computer Workstations								
(d.) Distributed Computing Facilities								
(e.) Super Computers								
(f.) Administration Computing								

Figure 12.11

RESOURCE REQUIREMENTS ASSOCIATED WITH THE COLLEGE PARK ENHANCEMENT PLAN FOR THE PERIODS FY 1991 - 1995 WORKSHEET #3B

MAJOR INITIATIVES	FISCAL YEAR - 1992							
	STATE GENERAL FUNDS	TUITION & MANDATORY FEES	PRIVATE SUPPORT	INDIRECT COST RECOVERY	INTERNAL REALLOCATION	GRANTS & CONTRACTS	OTHER	TOTAL
3. Administration and Administrative Support								
(a.) Implementing S.B. 459								
(b.) Streamline Administrative Procedures								
(c.) Enhance Support Staff								
Subtotal: Administration and Administrative Support								
4. Student Life								
(a.) Improving Access To Services								
(b.) Student Participation and Involvement								
(c.) Commuting Students								
(d.) Develop Leadership and Service Programs								
(e.) Improving The Residential Experience								
Subtotal: Student Life								
5. College Park As A Community								
(a.) Emphasizing The Intellectual Community								
(b.) Nurturing Diversity								
(c.) The State Of Maryland's Campus								
(d.) Strengthening Institutional Identity								
Subtotal: College Park As A Community								
SUBTOTAL: ENHANCING COLLEGE PARK'S ENVIRONMENT								
GRAND TOTAL FY 1991								

Figure 12.12

RESOURCE REQUIREMENTS ASSOCIATED WITH THE COLLEGE PARK ENHANCEMENT PLAN FOR THE PERIODS FY 1991 - 1995 WORKSHEET #3B

MAJOR INITIATIVES	FISCAL YEAR - 1993							
	STATE GENERAL FUNDS	TUITION & MANDATORY FEES	PRIVATE SUPPORT	INDIRECT COST RECOVERY	INTERNAL REALLOCATION	GRANTS & CONTRACTS	OTHER	TOTAL
A. SUPPORTING COLLEGE PARK'S MISSION								
1. Undergraduate Education								
(a.) Strengthening the Undergraduate Curriculum								
(b.) Improving Admissions and Advising								
(c.) Attracting Maryland's Best Undergraduates								
Subtotal: Undergraduate Education								
2. Graduate Education and Research								
(a.) Enhancing Departmental Operating Support								
(b.) Upgrading Research Facilities								
(c.) Attracting The Nation's Best Graduate Students								
(d.) Faculty Recruitment and Retention								
Subtotal: Graduate Education and Research								
3. Service								
(a.) Economic Development and Public Service								
(b.) Development / Public Relations								
(c.) Enhancing College Park As A Culture Resource For The State								
(d.) Educational Master Camps								
Subtotal: Service								
SUBTOTAL: SUPPORTING COLLEGE PARK'S MISSION								
B. ENHANCING COLLEGE PARK'S ENVIRONMENT								
1. Facilities								
(a.) Providing Modern Facilities								
(b.) Facilities Renewal								
(c.) Developing Facilities To Foster A Sense Of Community								
(d.) Auxiliary Facilities								
Subtotal: Facilities								
2. Computing and Libraries								
(a.) Library Collections Development and Management								
(b.) Library Information Technology								
(c.) Computer Workstations								
(d.) Distributed Computing Facilities								
(e.) Super Computers								
(f.) Administration Computing								

Figure 12.13

RESOURCE REQUIREMENTS ASSOCIATED WITH THE COLLEGE PARK ENHANCEMENT PLAN FOR THE PERIODS FY 1991 - 1995 WORKSHEET #3B

MAJOR INITIATIVES	FISCAL YEAR - 1993							
	STATE GENERAL FUNDS	TUITION & MANDATORY FEES	PRIVATE SUPPORT	INDIRECT COST RECOVERY	INTERNAL REALLOCATION	GRANTS & CONTRACTS	OTHER	TOTAL
3. Administration and Administrative Support								
(a.) Implementing S.B. 459								
(b.) Streamline Administrative Procedures								
(c.) Enhance Support Staff								
Subtotal: Administration and Administrative Support								
4. Student Life								
(a.) Improving Access To Services								
(b.) Student Participation and Involvement								
(c.) Commuting Students								
(d.) Develop Leadership and Service Programs								
(e.) Improving The Residential Experience								
Subtotal: Student Life								
5. College Park As A Community								
(a.) Emphasizing The Intellectual Community								
(b.) Nurturing Diversity								
(c.) The State Of Maryland's Campus								
(d.) Strengthening Institutional Identity								
Subtotal: College Park As A Community								
SUBTOTAL: ENHANCING COLLEGE PARK'S ENVIRONMENT								
GRAND TOTAL FY 1991								

Figure 12.14

RESOURCE REQUIREMENTS ASSOCIATED WITH THE COLLEGE PARK ENHANCEMENT PLAN FOR THE PERIODS FY 1991 - 1995 WORKSHEET #3B

MAJOR INITIATIVES	FISCAL YEAR - 1994							
	STATE GENERAL FUNDS	TUITION & MANDATORY FEES	PRIVATE SUPPORT	INDIRECT COST RECOVERY	INTERNAL REALLOCATION	GRANTS & CONTRACTS	OTHER	TOTAL
A. SUPPORTING COLLEGE PARK'S MISSION								
1. Undergraduate Education								
(a.) Strengthening the Undergraduate Curriculum								
(b.) Improving Admissions and Advising								
(c.) Attracting Maryland's Best Undergraduates								
Subtotal: Undergraduate Education								
2. Graduate Education and Research								
(a.) Enhancing Departmental Operating Support								
(b.) Upgrading Research Facilities								
(c.) Attracting The Nation's Best Graduate Students								
(d.) Faculty Recruitment and Retention								
Subtotal: Graduate Education and Research								
3. Service								
(a.) Economic Development and Public Service								
(b.) Development / Public Relations								
(c.) Enhancing College Park As A Culture Resource For The State								
(d.) Educational Master Camps								
Subtotal: Service								
SUBTOTAL: SUPPORTING COLLEGE PARK'S MISSION								
B. ENHANCING COLLEGE PARK'S ENVIRONMENT								
1. Facilities								
(a.) Providing Modern Facilities								
(b.) Facilities Renewal								
(c.) Developing Facilities To Foster A Sense Of Community								
(d.) Auxiliary Facilities								
Subtotal: Facilities								
2. Computing and Libraries								
(a.) Library Collections Development and Management								
(b.) Library Information Technology								
(c.) Computer Workstations								
(d.) Distributed Computing Facilities								
(e.) Super Computers								
(f.) Administration Computing								

Figure 12.15

RESOURCE REQUIREMENTS ASSOCIATED WITH THE COLLEGE PARK ENHANCEMENT PLAN FOR THE PERIODS FY 1991 - 1995

WORKSHEET #3B

MAJOR INITIATIVES	FISCAL YEAR 1994							
	STATE GENERAL FUNDS	TUITION & MANDATORY FEES	PRIVATE SUPPORT	INDIRECT COST RECOVERY	INTERNAL REALLOCATION	GRANTS & CONTRACTS	OTHER	TOTAL
3. Administration and Administrative Support								
(a.) Implementing S.B. 459								
(b.) Streamline Administrative Procedures								
(c.) Enhance Support Staff								
Subtotal: Administration and Administrative Support								
4. Student Life								
(a.) Improving Access To Services								
(b.) Student Participation and Involvement								
(c.) Commuting Students								
(d.) Develop Leadership and Service Programs								
(e.) Improving The Residential Experience								
Subtotal: Student Life								
5. College Park As A Community								
(a.) Emphasizing The Intellectual Community								
(b.) Nurturing Diversity								
(c.) The State Of Maryland's Campus								
(d.) Strengthening Institutional Identity								
Subtotal: College Park As A Community								
SUBTOTAL: ENHANCING COLLEGE PARK'S ENVIRONMENT								
GRAND TOTAL FY 1991								

Figure 12.16

RESOURCE REQUIREMENTS ASSOCIATED WITH THE COLLEGE PARK ENHANCEMENT PLAN FOR THE PERIODS FY 1991 - 1995 WORKSHEET #3B

MAJOR INITIATIVES	FISCAL YEAR - 1995							
	STATE GENERAL FUNDS	TUITION & MANDATORY FEES	PRIVATE SUPPORT	INDIRECT COST RECOVERY	INTERNAL REALLOCATION	GRANTS & CONTRACTS	OTHER	TOTAL
A. SUPPORTING COLLEGE PARK'S MISSION								
1. Undergraduate Education								
(a.) Strengthening the Undergraduate Curriculum								
(b.) Improving Admissions and Advising								
(c.) Attracting Maryland's Best Undergraduates								
Subtotal: Undergraduate Education								
2. Graduate Education and Research								
(a.) Enhancing Departmental Operating Support								
(b.) Upgrading Research Facilities								
(c.) Attracting The Nation's Best Graduate Students								
(d.) Faculty Recruitment and Retention								
Subtotal: Graduate Education and Research								
3. Service								
(a.) Economic Development and Public Service								
(b.) Development / Public Relations								
(c.) Enhancing College Park As A Culture Resource For The State								
(d.) Educational Master Camps								
Subtotal: Service								
SUBTOTAL: SUPPORTING COLLEGE PARK'S MISSION								
B. ENHANCING COLLEGE PARK'S ENVIRONMENT								
1. Facilities								
(a.) Providing Modern Facilities								
(b.) Facilities Renewal								
(c.) Developing Facilities To Foster A Sense Of Community								
(d.) Auxiliary Facilities								
Subtotal: Facilities								
2. Computing and Libraries								
(a.) Library Collections Development and Management								
(b.) Library Information Technology								
(c.) Computer Workstations								
(d.) Distributed Computing Facilities								
(e.) Super Computers								
(f.) Administration Computing								

Figure 12.17

RESOURCE REQUIREMENTS ASSOCIATED WITH THE COLLEGE PARK ENHANCEMENT PLAN FOR THE PERIODS FY 1991 - 1995 WORKSHEET #3B

MAJOR INITIATIVES	FISCAL YEAR - 1995							
	STATE GENERAL FUNDS	TUITION & MANDATORY FEES	PRIVATE SUPPORT	INDIRECT COST RECOVERY	INTERNAL REALLOCATION	GRANTS & CONTRACTS	OTHER	TOTAL
3. Administration and Administrative Support								
(a.) Implementing S.B. 459								
(b.) Streamline Administrative Procedures								
(c.) Enhance Support Staff								
Subtotal: Administration and Administrative Support								
4. Student Life								
(a.) Improving Access To Services								
(b.) Student Participation and Involvement								
(c.) Commuting Students								
(d.) Develop Leadership and Service Programs								
(e.) Improving The Residential Experience								
Subtotal: Student Life								
5. College Park As A Community								
(a.) Emphasizing The Intellectual Community								
(b.) Nurturing Diversity								
(c.) The State Of Maryland's Campus								
(d.) Strengthening Institutional Identity								
Subtotal: College Park As A Community								
SUBTOTAL: ENHANCING COLLEGE PARK'S ENVIRONMENT								
GRAND TOTAL FY 1991								

Select Bibliography

"Adele H. Stamp Student Union into the 21st Century: Task Force Report," Spring 1988

"Administrative Compensation Survey," College and University Personnel Association, 1987-88

A Study of the Support for Public Higher Education in South Dakota: A Comparative and Historical Analysis, South Dakota Board of Regents, 1988

"Report of the Admissions Committee: Proposal For A System Of Undergraduate Admissions For The University of Maryland College Park," July 26, 1988

Warlick, Charles, ed., *Directory of Computing Facilities in Higher Education, 1987-1988*

Blum, Debra E., "Cost of Recruiting Researchers Soars as Equipment Becomes More Sophisticated and Competition Grows," *Chronicle of Higher Education* Vol. XXXV, No. 6 October 5, 1988:

"Fall Enrollment 1987," Integrated Postsecondary Education Data System.

"Finance Statement for FY88," Integrated Postsecondary Education Data System.

"Academic Computing Plan for Fiscal Years 1989-1993," The University of Maryland Central Administration, April 1988

"Fiscal 1990 MARC Request and Statement of Resource Needs (1991-1994)," The University of Maryland. March 17, 1988

"FY 1990 MARC Request," University of Maryland at College Park

"FY90 UMCP Capital Budget Presentation for the Department of State Planning Hearings." July 25, 1988

"General Assembly Budget Briefing Book, 1988

"Higher Education Staff Information 1987," EEO-6.

Lesher, J. and Dorfman, J. Robert (Chairs), "Interim Report of the Faculty/Staff Club Planning Committee," July 1, 1988

"Libraries Five-Year Plan, University of Maryland: An Update FY 1990 through 1994," October 1987

Korenman, Victor (Chair), "Library Advisory Committee Response to External Report," University of Maryland at College Park, June 10, 1988

Greer, Sandra, "Making A Difference For Women: Report of the Committee on Undergraduate Women's Education," The University of Maryland at College Park, April 25, 1988

"Maryland Supercomputing Institute: Business Plan and Systems Administration," University of Maryland Systems Administration, September 1988

"Maryland: the State of Research at the College Park," Campus Office of Graduate Studies and Research, University of Maryland at College Park

The Middle States Self-Study, Volume I, The University of Maryland at College Park, 1985-1986

"Postsecondary Education Research Reports: State Initiatives to Promote Technological Innovation and Economic Growth." State Board for Higher Education, June, 1986

Sturtz, Charles F. (Chair), "Progress Report: Recreation/Athletics Facilities Master Plan Task Force," University of Maryland at College Park, July 18, 1988

Pease, John (Chair), "Promises To Keep: The College Park Plan For Undergraduate Education - Final Report Prepared by the College Park Campus Senate ad hoc Committee On Undergraduate Education ," The University of Maryland at College Park, September 14, 1987

Hyatt, James, et. al, *Reallocation: Strategies for Effective Resource Management*, NACUBO, 1984

Stark, Francis, "Report of the Task Force on Early Retirement and Retention Policies," University of Maryland Central Administration, March 26, 1987

"Salaries of Full-Time Instructional Faculty 1987-88," Integrated Postsecondary Education Data System

"Summary Report of Findings and Recommendations of the Student Housing Study at the University of Maryland College Park," Kramer Associates, Inc., August 29, 1988